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## Table of Contents

ORIGINAL ARTICLES—	PAGE.	NAVAL AND MILITARY—	PAGE.
"A Report on the Control of Pulmonary Tuberculosis," by J. GORDON HISLOP, M.B., Ch.B., M.R.C.P. . . . .	51	Appointments . . . . .	74
LEADING ARTICLES—		CORRESPONDENCE—	
A Retrospect . . . . .	63	The Alcoholic Question . . . . .	75
ABSTRACTS FROM CURRENT MEDICAL LITERATURE—		The Process of Attrition . . . . .	75
Ophthalmology . . . . .	68	BOOKS RECEIVED . . . . .	76
Laryngology and Otology . . . . .	68	MEDICAL APPOINTMENTS VACANT, ETC. . . . .	76
BRITISH MEDICAL ASSOCIATION NEWS—		MEDICAL APPOINTMENTS: IMPORTANT NOTICE . . . . .	76
Scientific . . . . .	70	DIARY FOR THE MONTH . . . . .	76
PUBLIC HEALTH—		EDITORIAL NOTICES . . . . .	76
Royal Commission on Public Health . . . . .	73		
OBITUARY—			
Lucius Watson Harvey . . . . .	74		
Eric Burton Reed . . . . .	74		
Margaret Amelia Corlis . . . . .	74		

### A REPORT ON THE CONTROL OF PULMONARY TUBERCULOSIS.

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#### NATIONAL HEALTH INSURANCE.

#### Its Relation to the Control of Pulmonary Tuberculosis.

IN view of the fact that it is intended to present a bill to Parliament concerning the introduction of national health insurance and that a Royal Commission is now taking evidence in all States for that purpose, I feel that it may be of some assistance to the Council of the British Medical Association in the State, if I put before them a report on the present English organizations and an attempt to adapt these methods of control to Victoria. Where in the proposed adaptation I have varied from the English organizations, I have stated reasons for so doing.

Notwithstanding the numerous attempts which have been made to discover a specific remedy for pulmonary tuberculosis, hygienic measures still hold pride of place in the prevention and treatment of the disease.

Though it is too early yet to expect any definite statement in regard to the value of Professor Dreyer's de-lipoidated vaccine, reports from those investigating this treatment would lead one to believe that whilst in cases of glandular and skin tuberculosis the results appear satisfactory, pulmonary tuberculosis does not seem to respond in the same manner.

Monsieur Spahlinger's claims have not impressed, apparently, our representatives and the purchase has been advised against.

An inquiry into the results of tuberculin treatment at Midhurst Sanatorium resulted as follows:<sup>(1)</sup> "Collectively the results point to the conclusion that tuberculin treatment, when given in addition to the usual measures practised in a sanatorium, had no appreciable effect for good or ill."

With regard to Dr. Camac Wilkinson's method of tuberculin treatment, in a confidential report to the Medical Research Council it was stated that it did not appear to have claims over other methods of treating tuberculosis either with or without tuberculin which would justify its general adoption. On this question *The British Medical Journal* reserved its judgement, laying down rules for investigation.<sup>(2)(3)</sup> And so in the campaign against pulmonary tuberculosis we must fight on yet awhile without a specific remedy.

This makes us turn once more to the methods in vogue in an attempt to set our house in order.

#### *The History of the Control.*

Although the credit of establishing the first sanatorium and of advocating and practising the "open air" treatment must be given to an Englishman, Dr. George Bodington, of Sutton-Coldfield, Warwickshire, it was not until forty-seven years afterwards that the treatment became definitely established in England, when Sir R. Philip founded the Royal Victoria Dispensary in Edinburgh, which ultimately included a sanatorium, hospital and farm colony and medical men who had been patients under Otto Walther at Nordrach (1888), returned to England and followed his methods. It was not until 1899 that the Brompton Hospital for Consumption and Diseases of the Chest in London established open air wards and in 1904 the Frimley Sanatorium of the Brompton Hospital was opened. About two years after this Midhurst Sanatorium which bears the name of King Edward VII. began to receive patients. These two institutions are the principal ones in the London County Council organization.

#### *National Insurance Established.*

In 1911 the *National Health Insurance Act* became law and provided for the treatment of patients, erection of sanatoria, with branchings of research and education. In May, 1912, the Local Government Board urged all county councils to submit schemes for the treatment of all persons within their area, such schemes not to be limited to insured persons, but available for the entire population and in December the Hobhouse Grant was announced and the financial position set out. The natural result of this was that treatment of and sanatorium benefit to patients with pulmonary tuberculosis was withdrawn by the National Insurance Commission and all insured persons were treated under the tuberculosis scheme of a county council or county borough council on the same basis as the ordinary civil population. This took effect from May 1, 1921.

There is no doubt that the grappling with the problem of tuberculosis by the National Insurance Commission was of considerable benefit, for with the funds at its disposal it established many institutions which would not have been otherwise brought into existence and so made many of the county council schemes possible.

It was seen that if these institutions only provided for insured persons the remainder of the civil population would receive no benefit and continue to be sources of infection. The council schemes were then evolved with the object of widening the scope of the campaign in order to bring all sufferers, insured and uninsured, into contact with the attacking forces.

It is to be hoped sincerely that something of the same nature will happen in Australia under the proposed national health insurance act. Having regard to the experience in England, it would be foolish for the Commission to restrict treatment to those

insured under the act, but as it will have to provide for the treatment of pulmonary tuberculosis, some scheme will have to be evolved and it is hoped that they will decide to recommend something of the nature of the Hobhouse Grant, so that a separate organization for the control of tuberculosis may come into being, an organization which will include the preventive measures amongst and treatment for and education of the whole civil population, and will not be restricted to one section of the community.

It would seem as if our only hope of improving the tuberculosis organizations in Australia lies in the National Insurance Commission recommending new links in the chain. Government sanatorium treatment in this country may be said to be almost non-existent, for owing to lack of funds and lack of the pre-sanatorium links in the chain, our sanatoria are fast becoming homes for patients in the advanced stages of disease.

In the matter of research into the problems of tuberculosis much has been done since the introduction of national health insurance, reports of very valuable work which was completed by its aid having been given to the Insurance Committee and later to the Medical Research Council.

#### *A STUDY OF AUSTRALIAN STATISTICS.*

##### *The Danger of the Future.*

A close investigation of the returns under the heading of "Tuberculosis in Australia" affords much of interest and at first sight it would appear that compared with other countries we are in a very favourable position. There are, however, one or two aspects of conditions in Australia which only become apparent after careful dissection of the figures. We have a low death rate, it is admitted, but it is not yet low enough and though the death rate over the past forty years has shown a steady decline—pre-war this could be said of all countries—the decline is not sufficient to allow us to sit Micawber-like awaiting the approach of the death rate to the infinitesimal.

##### *Comparison with Other Countries.*

Comparing the number of deaths annually per 100,000 persons living in various countries, Australia occupies the fourth position on the list with 53. Roumania in 1914 had the lowest return, 40, but with Europe in the grip of disease as it is today, we probably occupy second position to the white colony of South Africa with 41. When compared with England and Wales 88, United Kingdom 106, France 180, Germany 185 and Hungary 349, we may feel happy about our position. When it is realized that overcrowding is without doubt conducive to the spread of the disease, we feel we owe our comparative immunity to the widespread nature of our cities. It is interesting to compare death rates with the population per square mile (see accompanying table).

These figures are not a fair comparison with Australia on account of the tremendous spaces of our continent which are absolutely uninhabited and uninhabitable. However, they impress one with the

Country.	Death Rate per 100,000 persons living.	Population per Square Mile.
Union of South Africa (White) .. .. .	41 (1919)	14.65 (mixed)
Australia .. .. .	53 (1922)	1.91
England and Wales .. .. .	88 (1921)	400 (circa)
United Kingdom with Ireland	106 (1919)	390.87
France .. .. .	180 (1911)	184.38
Germany .. .. .	185 (1918)	328.40

fact that in our cities which are spread over a very much wider area than is any city of the same population in Europe, there ought to be a low infectivity rate. Yet, this spreading out and the absence of slum areas such as are to be seen in any of the old world cities, have not given us the relative figures we would expect and whilst the figures are not at hand at the moment to compare two cities such as Melbourne and Birmingham, for example, it is not unfair altogether to compare the death rates of England and Victoria, without asking England and Wales to carry the burden of the Irish death rate (190). These figures are respectively 88 and 67 (1922).

Now it may not actually be so, but it suggests that if we had the same density of population per square mile our death rate might possibly be in excess of that of England and Wales. It also raises the thought that possibly the Australian has a slight susceptibility to the infection which is only negated by the life in the open spaces. I am not altogether alone in this supposition; Dr. Penfold expressed no surprise at it, but informed me that when he compared the *post mortem* evidence in Australians and in those who had migrated from England, he found the incidence alike and when referring to doubtful lesions the foreign stock showed a greater prevalence.

These mere suggestions are sufficient to make us realize that some attempt must be made to control and prevent the ravages of this disease. The present is the psychological moment to undertake some scheme for the centres of our cities are now approaching more closely to the centres of the English cities in so far as in the inner suburbs flat life is becoming more and more popular. This must eventually lead to congestion, though we shall never see the like of the older cities. The problem must be faced, as it is impossible for those who work in the city proper, to travel more than a stated distance from their daily work. Along with the question of fares, the time spent in travel will induce the worker to pay more rent for a home nearer the civic centre. This home must be eventually a flat or rooms. The rate at which flats have increased in the inner suburbs of Melbourne is amazing and houses which in pre-war times were the home of one family, are now let off in rooms to two or more families. Some of this is due to the post-war scarcity of houses, but a considerable amount is due to the necessity of living, as well as the desire to live near the place of occupation. There is no doubt that Melbourne is taking its boundaries far out into

the outer suburban areas, but at the same time its inner suburbs are becoming rapidly congested. Thus we are losing the immunity which we enjoyed because of the widespread nature of our cities.

What will this congestion bring in its train? We can say that our low death rate from tuberculosis is not so much a result of the physical fitness of our race, as that the low death rate and the physical fitness are both due to our present ability to let the multitudes live in hygienic conditions. Many valuable lives are lost each year as a result of this one disease; 911 persons died in Victoria from tuberculosis of the lungs last year and of these 60% were between the ages of twenty and forty-five years at time of death. Add to this that every second person is afflicted at some stage of his or her life with tuberculosis and is temporarily, at least, incapacitated, it then becomes obvious that the establishment of an organization to control tuberculosis is immediately necessary.

#### A REVIEW OF PRESENT CONDITIONS.

##### The Problem of the Contact.

Under our present system few if any means are adopted to control efficiently the spread of infection. True a campaign was initiated against the dangerous practice of expectorating in trams, in trains, on footpaths and elsewhere and the spittoons which were for so long a feature of our smoking carriages, are no longer to be seen. True, that we have our sanatoria into which patients are admitted for treatment and are there taught methods of precaution by which they may render themselves less infections to their own kith and kin and to their fellow citizens.

##### Public Education.

No serious attempt is made to educate the public as to the danger of promiscuous expectoration and of coughing in a crowded place. Expectorations in public places should be made a punishable offence, for it is from the sputum drying in the open air and in the humid atmosphere of a public conveyance that the dust containing the bacilli, spreads them from person to person. The dried sputum is held to be more dangerous than the moist, though there is no doubt that the droplets which a sufferer coughs into the air, are infective. It should be possible for those who need them to obtain sputum flasks at a nominal cost, of such a size that they may be effective and yet easily carried in a vest pocket or purse. How these must be kept clean could easily be imparted to each purchaser in printed instructions. At present, I doubt if any hospital supplies its tuberculous out-patients with sputum flasks.

##### After Care.

What of those who return to their homes from a sanatorium? Many return unfit for their work and have to exist on their invalid pension. No steps are taken to keep them under observation and care, save that the tuberculosis bureau does it in a few cases, nor are any whole-hearted attempts made to prevent them from exposing others to infection, whether it be from a lack of thought for others or whether it be from lack of financial means.



In a large number of cases those afflicted are sleeping in the same room or even in the same bed as other members of the family. What chance have these others of escaping? It may be definitely said that the incidence and the death rate are in definite proportion to the density of the population and with the average number of inhabitants occupying a house or room.<sup>(4)</sup> In this country where there are but few houses without verandahs, this state of affairs can be readily remedied. But whose business is it to find out if such a state of affairs exists or whether the patient has the extra bed to put on the verandah or if not whether he can afford it? If he or she cannot buy it, who will help him?

#### The Contact.

What of the other members of the family? They are all contacts and as such potential victims. It is surely somebody's task to advise, watch over and care for these individuals. With our present knowledge it is not often that we can cure one in the advanced stages of pulmonary tuberculosis but if we follow them all up and help them to help themselves and also keep an eye on the home mates, the vast majority of these contacts can be put under treatment sufficiently early to insure a reasonable prospect of arrest or cure.

"Prevent the contacts becoming victims!" should be the slogan of the campaign, for by so doing, the disease will be considerably diminished and its ravages controlled.

At the present time there are not a few tuberculous patients who as a result of sanatorium treatment or some other method by which their resistance has been raised, are fit to do a certain amount of daily work though not a full day's labour, but have to remain in idleness because of their inability to find work suitable to their physical state.

Numbers of them are not infectious and are willing to do the amount of labour of which they are capable, but cannot risk a full day knowing that under such conditions their disease will again become active. Others have in sheer desperation returned to their former unsuitable occupations rather than remain idle, while their dependants do without the necessities of life. Others exist on donations from their unions or strive to live on their pensions. Can these individuals afford to carry out the necessary precautions?

There is no organization which will assist financially the patient who ought to go to a sanatorium, but who, because of his wife and children would be left without support in the event of his placing himself under treatment, endeavours to carry on, hoping against hope that medicine received from the out-patient department of a general hospital will restore him to physical fitness. At last in an advanced condition he has to give in and then, when he is regarded as permanently unfit for work, he receives an invalid pension.

Neither is there any organization whose task it is to find suitable employment for men who have dependants and who have returned partially fit after sanatorium treatment. There is the Anzac

Red Cross Farm at Janefield for returned soldier patients, but there is no such institution for civilian patients.

In all the clinics of the out-patient departments of the general hospitals dissatisfaction is felt at the present methods or rather the present lack of method in dealing with persons suffering from pulmonary tuberculosis. No organized attempt is made to assist those who are working at trades which are known to have an injurious effect upon the health, especially of the lungs. And what is more, no serious attempt is made to ascertain what diseases are injurious. Figures given below are useless in this respect until we know the number working at the various trades.

Occupations of males who died from pulmonary tuberculosis in 1922 for the whole of Australia, are as follow: Professional classes 161, domestic (boarding houses *et cetera*) 78, commercial 310, transport 169, industrial 704, agricultural and pastoral (including mining 145) 363, dependants 155, others 73.

The majority of the females who died from this cause in 1922, were engaged in sedentary occupations at the time of death or infection.

In the same year 1,098 new infections were notified in Victoria and when it is realized that 90% of these are in the stage in which there is actual damage to the lung tissue and that these figures do not include the large number of infections in which damage has not yet been done, the number of afflicted in our State is in no way small.

Working on the figures that at least one thousand persons are reported each year and nearly all of these are in the infective stage and that 75% of them are dead within four years after the finding of tubercle bacilli in the sputum, there are at least three thousand infective agents in this State. It is nearly accurate to say that each person has three domestic or home contacts; the total of these then becomes nine thousand. This does not include work contacts.

#### THE CLINIC FOR DISEASES OF THE CHEST (THE DISPENSARY): ITS AIMS AND OBJECTS.

##### Practical Suggestions for its Establishment.

The term dispensary should be dropped in favour of the term clinic for diseases of the chest. One of the most important links in any scheme for the prevention and control of pulmonary tuberculosis goes in European countries by the name of the tuberculosis dispensary, a term which in many ways defeats its own ends and which is not applicable in this country.

Dr. R. A. Strong has suggested the term clinic for diseases of the chest. This term has only one objection, which may not be important if all diseases of the chest are treated at that clinic, but is important if patients with non-tuberculous diseases must be transferred elsewhere. Persons will hesitate to enter a tuberculosis dispensary, for fear of being designated by friends and relatives as consumptive and so shunned, for there is a social stigma in being tuberculous. One of the problems in the cam-



paign is the removal of that stigma. One has no more right to designate a person as consumptive who attends a clinic for diseases of the chest than one has to assume that a person attending the outpatient department of a hospital, is afflicted with syphilis.

#### The Objectives of the Clinic.

To this institution individuals may come for advice as to whether they be tuberculous or not. They will be thoroughly examined and, if not actually tuberculous but in a low state of health, will be advised as to best means to adopt whereby they may restore themselves to physical fitness, thus raising their resistance and rendering their chance of becoming tuberculous more remote.

It may be that some other ailment is diagnosed, when they will be advised as to where and how they may receive the necessary treatment.

When the symptoms and signs are such as to justify a tentative diagnosis of tuberculosis, the patient is put under treatment. A short period of rest and change of air may be all that is necessary to refit these subjects for their place in society.

In the case of those who are definitely tuberculous, treatment is undertaken and many methods may be used as individual requirements suggest. The physician in charge of the clinic will visit the homes of all tuberculous patients immediately the diagnosis is made. He will advise as to the best means of precaution or prevention that can be carried out in that particular home, advise the contacts as to the value of submitting themselves to examination and, if requested, will examine them as well as telling them how they may endeavour to prevent themselves becoming infected. He will inquire into the sleeping accommodation of the sufferer and the possibility of his or her sleeping in a separate room or on the verandah.

After a careful study of the patient's condition and home surroundings, it is open to the physician to treat the sufferer in his own home or to advise hospital or sanatorium admission or it may be decided that attendance at the clinic is all that is necessary.

When home treatment is considered effective, the physician will consult with the patient's family doctor or in case of those who cannot afford a medical attendant, he will assume that rôle to them. The clinic nurses will visit these patients from time to time as may be thought necessary.

In England today the visiting in many dispensaries is not done by the physician, but by his assistant or by the nursing staff. This is a great mistake.

#### Value of the Physician Visiting the Home.

The value of this visiting being done by the physician in charge of the clinic, was brought home very forcibly to me during my term as Assistant Physician to the South Kensington Tuberculosis Dispensary, Brompton Hospital, London, where the visiting was done by the assistant. As the assistants were changed every six months they did not know

the patients thoroughly, nor did they have time to gain the confidence of those whose homes they visited. One more point that impressed itself upon me there and that has been even more heavily impressed upon me since my return, as I have endeavoured to follow up the contacts of some patients at the Melbourne Hospital, is that the clinic should be open on one evening each week, as well as on two mornings or afternoons, so that those who are contacts, but at work, may submit themselves for examination without having to lose a day's work. It is always a difficult matter to persuade a contact to stay at home for a day so that one may visit him and what is more, it is unnecessary to ask it if there is the facility for attending on one evening. The physician visiting the home gets to know his contacts and can observe them, but this is lost if the visiting physician is only on the clinic staff for a short period.

#### Infection In the Home.

Sir James Kingston Fowler in his book "Problems of Tuberculosis" makes the following statement:<sup>(5)</sup>

The most active centre is undoubtedly the home (centre of infection), therefore the energies of the medical officers and visitors attached to the tuberculous dispensaries should be chiefly directed to the examination of contacts. There is no trustworthy evidence to show that the disease is now being discovered at an earlier stage than previously. At present amongst the working classes when the onset of the disease is insidious, there are no early cases of pulmonary tuberculosis, but there are persons suffering from loss of energy, cough and expectoration and it is the business of the tuberculosis officers to recognize as cases of pulmonary tuberculosis these sufferers from what they themselves regard as ailments not sufficiently serious to interrupt their work.

A. Rollier says in his book on "Heliotherapy":<sup>(6)</sup>

Recently even the importance of this "diathesis"—hereditary tendency or heightened susceptibility towards the disease—has been severely criticized and it cannot be denied that many familial cases previously ascribed to hereditary causes, were really due much more to increased chances of infection from the proximity of a tuberculous relative. While it would be going too far to deny the existence of this predisposition to tuberculosis, it is, I believe, safe to say that its importance is very much less than that of environment.

#### Clinic After Care.

When a patient is admitted to a hospital or sanatorium, he is only temporarily transferred from the attention of the clinic staff to whom he returns after institutional treatment. This is not carried out as strictly as it might be, but will have to be in the future.

#### After Discharge from Sanatorium.

It may be said that there are six discharge doors from a sanatorium.

Through the first door pass out those restored to fitness with the activity of the disease arrested and through the second those who have benefited by their stay, but who still require additional treatment in the way of periodical rest and observation or repeated fillings in those who have been treated by means of artificial pneumothorax, to restore them to some degree of physical fitness. These two doors

should lead straight back to the clinic in order that the first class of patient may be invited to use its services from time to time, so that he may retain his fitness and that the second class may receive the extra amount of treatment which they need.

The third door is for those who during their stay have shown that they are fit to fill a vacancy on the sanatorium staff; the grounds staff claim the man and the domestic staff, the woman.

Through the fourth and fifth doors pass out those patients who have been fitted to take up a new environment, a new occupation which will not undo the benefit which treatment has conferred upon them. These discharged patients are absorbed by farm colonies where they may learn the rudiments of the new occupation which is to be their future work or by care committees which will assist them whilst they perform their new task in increasing numbers of hours daily until such time as they are able to work for a sufficient number of hours to make themselves financially independent of the committee's aid.

Through the last door pass out the patients who have received no benefit from their period of residence, a class which is now relatively large and whose lack of response to treatment is due to the fact that treatment was commenced at too late a stage, when prospect of success was entirely absent. This class will become smaller and smaller as it becomes possible to have all contacts under observation and treatment is commenced during a hopeful and not a hopeless stage.

In confirmation of this bald statement I would ask the reader to turn to the leading article in *THE MEDICAL JOURNAL OF AUSTRALIA* of November 18, 1922, "The Framington Experiment":

In the first year nearly half the infected persons were found to be in an advanced stage of disease (1916). As a result of the measures adopted, the proportion of advanced cases was reduced by 1921 to 17% of the infected. This means an enormous gain in early diagnosis. The mortality in the years prior to commencement was 121.5 per hundred thousand of population. In 1921 it was 40. This means a reduction in five years of 67%.

It has been definitely proved that the clinic is more effective when it is in close relationship with a general hospital or a special hospital for diseases of the chest. With this relationship present all the resources of the hospital may be called upon to establish an early diagnosis. Sir James Kingston Fowler has expressed himself in the following terms in this connexion:<sup>(7)</sup>

There is now a tuberculosis department at several of the general hospitals of London and at one at least its value is appreciated by the students. I was very pleased to be told by a house physician that it was considered to be a very important part of the hospital and he added: "That's where we learn our chests."

This really makes one hopeful for the future. When a tuberculosis department under the charge of a competent physician is to be found at every general hospital to which a medical school is attached, but not in London only, and the students make use of it, there will be fewer errors in diagnosis and a great many more doctors who can tell you "where they learnt their chests."

Thus the clinic performs the duties of diagnosis, treatment, care and prevention.

As a first step it is possible to establish this clinic in conjunction with one of the Melbourne hospitals, preferably the Melbourne Hospital. Within twelve months after such a clinic was started the need for further and better sanatorium accommodation would become so obvious and public opinion so strong, that the Governments would be awakened from their lethargy.

#### Practical Suggestions.

1. The clinic to be called the Clinic for Prevention of Diseases of the Chest or some such name as may be decided upon.

2. The clinic may be held in the out-patient department on two afternoons in the week and one evening. The necessary arrangements for having the department open on one evening in the week from 7 p.m. till 9 p.m. would have to be made, but would be simplified by the introduction of a rule that the evening sessions are principally for examination of contacts and the reception of those seeking diagnostic advice and that no medicinal treatment entailing the opening of the dispensing department would be given. Those requiring treatment would be asked to attend the other sessions.

3. The physician in charge to be a full time officer without the right of private practice. The salary to be such as will attract a man thoroughly acquainted with the vagaries of the diseases who will be content to remain in the post for several years.

There is no doubt that the clinic is of more value when the senior physician is a permanent official, controls the records and statistics over a long period and does the visiting duties himself and by so doing gains the confidence of his patients and watches their progress. Patients do not welcome the visits of numerous physicians, but do welcome the continued attention of one.

4. The sister is an important person. She must be competent and tactful, observant and resourceful. She must make herself necessary to the homes she visits and it often depends on her whether a contact whom she may suspect of losing his or her fitness, can be persuaded to place himself or herself under the care of the clinic staff.

Dr. Sinclair Gillies, of the Royal Prince Alfred Hospital Dispensary, suggested that the sister should be appointed on probation for twelve months and if suitable should then be appointed permanently. This is, I think, wise. The post should be a full time one and whilst at first it would only be necessary to have one sister, more would be ultimately required.

5. Full arrangements would have to be made for radiological examination which is now extensively resorted to in diagnosis as well as control of pneumothorax. All patients with suspicious signs would be examined radiologically. It may be necessary to compensate a radiologist for the time spent on the work, as for the smoother working of the clinic he should be prepared to be there when the clinic is open.

6. A certain amount of medicinal treatment will be called for necessitating additional work in the

dispensing department. Beyond this arrangements should be made to supply small bottles in which the sputum may be sent through the post. These will have to conform with postal regulations. In addition sputum flasks of a character and size to be decided upon would have to be provided or sold at a nominal cost. Masks for continuous use in inhalation are essential for persons with laryngeal tuberculosis.

7. If, as there will be at first, there is but the one clinic, the visiting area will be a large one. This will necessitate the provision of some means of conveyance for the physician. The city may have to be divided up into districts ultimately and a clinic nurse appointed to each district.

8. Sputum examination and the examination of the blood by the Wassermann test and possibly other complement fixation tests, are necessary in the diagnosis.

9. Some extra but inexpensive equipment would be needed. Much work is being done in connexion with Professor Dreyer's relations of trunk height, body weight and vital capacity as a measurement of physical fitness. It would be advisable to continue this work in the clinic over long periods in each case. A trunk height measurement scale would be needed, as well as an instrument to measure the vital capacity, a spirometer, the best type of which is one that indicates the measurement by the movement of a pointer around a clock face. It gives a larger range of movement than any other type and allows of finer readings which are necessary for observations over long periods when slight alterations must be watched. Its accuracy may always be gauged and adjusted by the use of an artificial pneumothorax set.

10. Once the clinic has been established, an assistant physician may have to be appointed, whose duties at first would only entail his presence at the clinic, visiting duties not being necessary unless the patients became too numerous for the one physician to do all the visiting. When that stage is reached, it would be wise to organize another clinic at one of the other hospitals, the one draining the north side of Melbourne and the other the south.

11. The clinic cannot be regarded in the same light as the rest of the out-patient department from the point of view of teaching utilities. Dr. Sinclair Gillies, of the Royal Prince Alfred Hospital Dispensary, Sydney, said at the Congress that when the students appeared, the patients disappeared. With this I agree. It would not be difficult, however, to make adequate arrangements for the satisfactory teaching of students. I would propose that the physician in charge of the clinic be appointed lecturer in pulmonary tuberculosis to the University of Melbourne. He could be called upon to give a series of lectures illustrated by records from the clinic and by radiograms thrown on to the sheet by the epidiascope. The material from the clinic would be such that records of cases and X-ray illustrations would afford an interesting and instructive survey of the subject. His lectures would also cover the working methods of the clinic, social problems and the methods used

to combat them, a critical survey of all forms of treatment and a review of sanatorium treatment, farm colonization and after-welfare control. In addition to this he could arrange with patients under his care to attend the clinic at times suitable to the students' curriculum, when the clinic is not receiving the patients and then to give clinical instruction in the examination of patients in the several stages of the disease. The number of students attending these classes would have to be varied according to the numbers of students attending the various hospitals, the number found not to be too large to lessen the benefits of this instruction and the number of attendances found necessary to make the students thoroughly acquainted with the vagaries of the disease. It might be necessary to divide the "year" into six or eight groups and give each group at least eight attendances. This would absorb a large amount of the physicians time, but would result in students becoming thoroughly acquainted with the disease, its treatment and methods of control and going out as graduates thoroughly equipped to join in the campaign to prevent the spread of this disease.

The duties of the physician would thus be: Attendance at the clinic on two afternoons and one evening; giving lectures and clinical demonstrations to students on two afternoons; visiting each morning and one afternoon; attendance at the care committee, probably once a week. It would be advisable to allow of his retaining some contact with general medicine and for this purpose he could be appointed honorary assistant physician to out-patients, attending on two mornings a week, leaving four mornings and one afternoon for visiting.

#### THE CARE COMMITTEE: ITS SCOPE AND PRINCIPLES.

The work of the clinic will be rendered more effective by the cooperation of a voluntary care committee which will supplement the medical care and treatment by members of the clinic staff.

#### Care Committee or Lady Almoners: Which?

In some organizations the place of the care committee is taken by a staff of lady almoners, but whilst at Brompton I came to the conclusion that in so far as pulmonary tuberculosis work was concerned, lady almoners are not the success they are when attached to a general hospital.

It must be remembered that to such a clinic all types of patients will come for advice and in many instances the patient who has improved under the *régime*, will not feel very ill and not a few regard their visits to the clinic from time to time, as a favour they are bestowing on the physician.

These and many others resent visitation by one who cannot lay claim to being either a nurse or a doctor. Medical science has to be used often as a means of defence in conversation with these persons and then combined with a liberal admixture of tact and a knowledge of human nature which is engendered by a medical education. The clinic staff very often become confidants of the whole family, when their task is made much more simple.



#### Members of the Care Committee.

The care committee should consist of men and women representative of varying interests in the community and should have funds at its disposal which may be entirely a Government grant or a Government subsidizing of voluntary subscriptions. Five members will be sufficient; as a suggestion the following bodies may be represented: Government (Health Department), hospital committee, trades unions, charitable organizations, National Council of Women.

#### Meetings of Committee.

The committee would meet from time to time or as often as may be necessary to prevent any undue delay in supplementing the clinic treatment. Once a week may be advisable. All services rendered by this committee should be of a voluntary nature.

#### Work of the Committee.

The Lancashire Care Committees, the best developed of this type, may be instanced:

They assist in the purchase of outfits of clothing which patients need when they go to a sanatorium or hospital; they provide food and clothes for poor persons who are receiving treatment at home; provide bedding for patients to enable them to sleep alone; assist dependants when a little timely help may enable the bread-winner to give up work in the early stages of disease, when the prospects of arrest and cure are still good; assist in finding suitable work for patients who have sufficiently recovered and endeavour to enlighten the public on the laws of health and facilities for the treatment of tuberculosis.

#### Visiting by Care Committee Members.

In some districts the members of the care committee visit the patients' homes. This is not always advisable and should only be done in special circumstances. Tuberculosis is a disease, for the main part, of poverty and brings poverty, whilst poverty brings tuberculosis and so the vicious circle is created. Along with this poverty there comes a pride that resents, however kindly and tactfully it is done, the entry of the home by a lay person whose very dress throws their poverty into relief. In every step the cooperation of the patient and contact must be obtained at any cost and the whole treatment made one of grades, so that the psychology of the patient be considered and the improvement made visible in tangible steps. The care committees must never on any account become benevolent societies, as their utility would then be at an end.

It is much wiser for the physician to prepare a detailed report of each case in which he desires the committee to supplement his treatment or to provide the necessary articles which will enable the patient to benefit to the full by the treatment or to carry out precautions. They may then take steps to see that the patient is supplied with the articles they deem essential.

In the case of the patient desiring financial aid whilst he is fitting himself to become independent after his return from institutional treatment, or in the case of those who are being sent to farm colonies, these patients should appear before the committee who will after consideration state in how far they will assist financially.

#### Case Examples.

Quoted from *The British Medical Journal*, these instances will give a better idea of the scope of the committee:

(1) A patient lived with a widowed mother, a sister and shared a bed with three brothers. The care committee obtained a grant of £5 and bed, bedding and blankets were supplied so that the patient could sleep alone.

(2) A patient, an ex-service man, lived in unsatisfactory lodgings, his wife and children living elsewhere, also in lodgings. A house was secured from the local authority and the Red Cross assisted with removal expenses.

(3) A girl was in need of clothes and the family were "badly off." The committee collected two complete sets of clothes, boots and stockings.

(4) A patient, a boy, lived in an unsatisfactory home. The mother being dead, a sister, nineteen years of age, managed the home, but owing to inexperience the income was badly laid out. The girl was advised by a sympathetic and competent worker and the results were distinctly satisfactory. This is undoubtedly the type of case in which the personal interest of a member of the Committee would be invaluable.

(5) The mother of a family required sanatorium treatment, but could not leave her three children including the baby. The baby was sent to a residential nursery, the other children being delicate were sent to a convalescent home at first and were subsequently boarded out. The father paid seventeen shillings a week until he lost his employment and the Red Cross found the balance. Needless to say the case involved the committee in a lot of work, but it resulted in the mother being able to enter a sanatorium.

The Departmental Committee on Tuberculosis known as the Astor Committee of 1912, reported as follows:

The effectiveness of the work of the dispensary (clinic) can be greatly increased by the organization of voluntary care committees formed of representatives from the local authorities, boards of guardians, insurance committees and from all charitable and social work organizations in the district. In this way all available agencies can be linked up and any extra assistance such as additional food, change of air, clothing, better home conditions, more suitable occupation etc., that may be needed to enable patients to benefit to the fullest extent from the treatment, may be readily secured.

The establishment of such a committee in Melbourne would not be difficult and there are many who would be only too glad to render voluntary assistance in this way of helping to control tuberculosis.

#### The National Expansion of the Clinic.

The plans which have been given for the establishment of the clinic, have been of necessity modelled to meet the present situation of the Melbourne Hospital. When, however, it appears likely that the Parkville site will be granted for extensions of Melbourne's hospital accommodation, or that some use will be made of the Caulfield Hospital, it may be well to look ahead for the future requirements of our city.

As soon as the Parkville site is granted to the Melbourne Hospital authorities, it is suggested that the clinic be transferred there, or in the event of the Caulfield Hospital being used as a convalescent home some beds might be reserved for the treatment of patients with pulmonary tuberculosis. In England today there are many beds available purely for the treatment of persons suffering from pul-

monary tuberculosis, but with the present congested nature of the Melbourne Hospital it is impossible to recommend hospital treatment for more than a few and impossible to advise those patients who should have hospital treatment for three or four weeks prior to admission to a sanatorium.

Artificial pneumothorax treatment for pulmonary tuberculosis (and also bronchiectasis, lung abscess and some other conditions) is being more and more widely recognized throughout the Continent and England. This treatment demands hospital residence up to one month prior to admission into sanatorium and calls for radiological control throughout the course of the treatment which may be from two to four years. After six months, however, most of the patients so treated are able to resume a certain amount of work.

Of this method Clive Riviere in his book on the subject says: "During the early course of pneumothorax treatment rest in bed is required. . . . When a patient's general condition is good and fever has quite gone, a fortnight's bed may suffice . . . . When prolonged fever and illness have undermined the patient's health, a month or more in bed may be needed. There is one important advantage which a nursing home or hospital may have over a private house and that is the presence of an X-ray installation. If treatment is carried out in the patient's home, the presence of a trained nurse is an almost indispensable convenience during the first few weeks." Thus at the present moment the treatment is denied to the vast majority of sufferers. True, at present this form of treatment is applicable to about 7% of patients, but it will become applicable to a much greater percentage when they are brought to treatment in an early and suitable condition as they will be by the clinic observation of contacts.

L. S. T. Burrell, under whom the writer had the pleasure of working, writes in his report to the Medical Research Council: "I do not suggest that this method of treatment is the only one for pulmonary tuberculosis and it certainly has its limitations, but in selected cases it gives a very good chance to patients who can expect nothing from any other form of treatment. It is also of the greatest value in certain non-tuberculous cases."

Sir James Kingston Fowler said at the Royal Society of Medicine in May, 1922, that he had "lived to see two real advances in the treatment of pulmonary tuberculosis, one sanatorium treatment and the other artificial pneumothorax."

The technique as described in the Medical Research Council's report is the one now universally adopted. Some notes on the artificial pneumothorax treatment of pulmonary tuberculosis by the writer have appeared in these columns, in which he explained the details in full and quoted results of cases.

The treatment once commenced at the clinic would have to be continued at the sanatorium and then on discharge from there, the patient would have to attend the clinic at stated periods so that the

refillings could be administered. These attendances do not entail anything more than one hour's rest after refilling. The various sanatoria in England now advertise that they are open to receive patients treated by the induction of artificial pneumothorax and that they possess an X-ray installation. Each of these is regarded as a *sine qua non*.

This is but one piece of evidence of the value of having such accommodation at hand. Beyond this it may be stated that in many hospitals the treatment of pleural effusions has considerably altered in that in place of the former method of aspiration, replacement by oxygen by means of the artificial pneumothorax apparatus, is now adopted. When beds are available this method could be generally employed and the claim that it diminishes the length of treatment and lessens after effects, could be investigated.

In addition it may be stated that when tuberculous patients are admitted into hospitals prior to transfer to sanatorium, it soon becomes obvious how far they are going to respond to treatment; they can thus be graded in regard to the type of sanatorium to which they should go. Of course this grading will not always prove correct, but it is a guide.

Again febrile patients should be first admitted to a hospital where their temperature can be brought to within normal limits by absolute rest treatment. The necessity for bed treatment will be largely eliminated from the sanatoria, where the majority of the patients will be able to be out of bed for at least part of the day. Of course the sanatoria must have the nursing facilities for patients in bed, but by these preliminary measures the number of the trained nursing staff needed in the sanatorium will be smaller and much expense rendered unnecessary.

An honorary surgeon appointed to the clinic would have ample scope in collaboration with the physician to investigate cases of empyema and surgical diseases of the chest and the work which is being done in connexion with gas replacement of empyemata, could be followed up in our own city.

In such an establishment as this, its whole resources could immediately be thrown into the investigation of any new form of treatment which might be announced and its effect watched in all phases of the disease.

An X-ray establishment would be necessary, but need not be elaborate since most of the examinations could be accomplished by screening and screen plates and only occasionally would it be necessary to have the patient in the prone position.

The nursing staff would not have to be large and probably one sister could manage with probationers, since little else but rest is needed by the patients, apart from the attention of the medical officer.

A resident medical officer could be appointed and act as assistant physician to the clinic. The establishment of such a clinic or what might prove to be in the future a hospital for diseases of the chest, would prove an invaluable clinical school for these diseases.

Nothing elaborate in the way of a pathological department should be erected, for anything needing special investigation could, at first, be done elsewhere. When a general hospital is erected, the clinic will be in close cooperation and the one pathology department will meet the needs of both institutions.

#### THE PUBLICITY CAMPAIGN.

The work of the clinic must be made known to the public by all the means at our disposal. The value of good health cannot be over-estimated. The early symptoms of the disease must be brought before the public and it must be impressed with the value of visiting the clinic before the symptoms become definite and with the fact that taken in the early stages diseases of the chest in the vast majority of cases, can be cured. The most important facts to be brought forward very prominently are that those who are simply in their opinion "run down" and "below par," may come for advice and examination; that patients with all types of diseases of the chest will be received there (and afterwards re-graded and separated and possibly those with non-tuberculous affections transferred) and that there is no risk of those who are not tuberculous being infected, in that tuberculous patients attending there are taught to observe rigid precautions.

It may be advisable to adopt some of the American methods of advertising the value of prevention and to place in a conspicuous part of each factory, warehouse and shop posters of an educational character, indicating the vagaries of tuberculosis, how it spreads, the methods of its prevention, its early symptoms and some catch phrases, such as: "Are you feeling fit? If not, consult the clinic for advice." "Have you a cough? Why not have it attended to?" "Are you over-tired at the end of the day's work? Are you subject to colds? Colds are the fore-runners of serious disease" and so on, detailing each symptom.

Local medical officers of health should be asked to cooperate and refer patients to the clinic so that a detailed investigation may be carried out and in this way assist the clinic to come into contact with all the infected persons.

General practitioners must be interested in the work and advised that they may refer any of their patients for special investigation who cannot afford to pay for it privately and that they may refer patients to the clinic for treatment.

The out-patient physicians of the general hospitals should be asked to cooperate by sending along tuberculous patients once the diagnosis has been suggested, so that treatment may be controlled and principally so that the contacts may be traced, the home conditions investigated and steps taken to insure that the patients receive the full benefit of any treatment recommended.

#### Notification.

Two methods of notification of tuberculosis may be tried: (i.) Medical practitioners may be asked to

notify all cases of tuberculosis, proved or suspected. One copy should be forwarded to the local authorities and one to the clinic. The medical officers at the clinic should report all their cases to the Health Department. The form may then read:

In my opinion....(name and address)....is suffering from tuberculosis of the.....(name site of lesion).....

In this way many will not feel so loath to notify as they do at present when they have to say that the patient is suffering from tuberculosis (pulmonary or otherwise).

(ii.) Notification may be made compulsory with penalties. In Western Australia the following notices are issued periodically:

#### Notification.

Compliance with the following requirements of the *Health Act* will avoid correspondence and unpleasant sequelæ:

1. Every case of "infectious disease" (including tuberculosis) must be notified at once to the Commissioner of Public Health and to the local authority. Penalty for failure, £10; fee for notification, 2s.
2. Even if a medical practitioner knows a case has been previously notified by another practitioner, the former must still notify the case as set out above.
3. Every death from an infectious disease must be notified to the local authority. Fee 2s.; penalty £10.
4. Every death from any form of tuberculous disease must be notified to the Commissioner and the local authority. Penalty, £2 to £20.
5. Every case of tuberculosis seen during the previous calendar year must be reported upon in each January. Fee for each case so reported, 2s. 6d; penalty, £2 to £20.

#### SOME SUGGESTIONS REGARDING SANATORIUM CONTROL.

The foregoing sections conclude the details for the establishment of the clinic, but in a review of the question such as this is, it may be an advantage to delve a little into the other departments which will form the whole chain of organization.

When any scheme is being worked out, an inquiry should be made as to whether the number of sanatorium beds is sufficient. This can only be done by departmental officers who have before them the figures relating to the number of admissions and the number of applicants for admission.

There is one suggestion, however, that may be worth considering when the question of providing further sanatorium accommodation is being made the subject of inquiry. It is the grading of the sanatoria. It would appear that three grades are necessary.

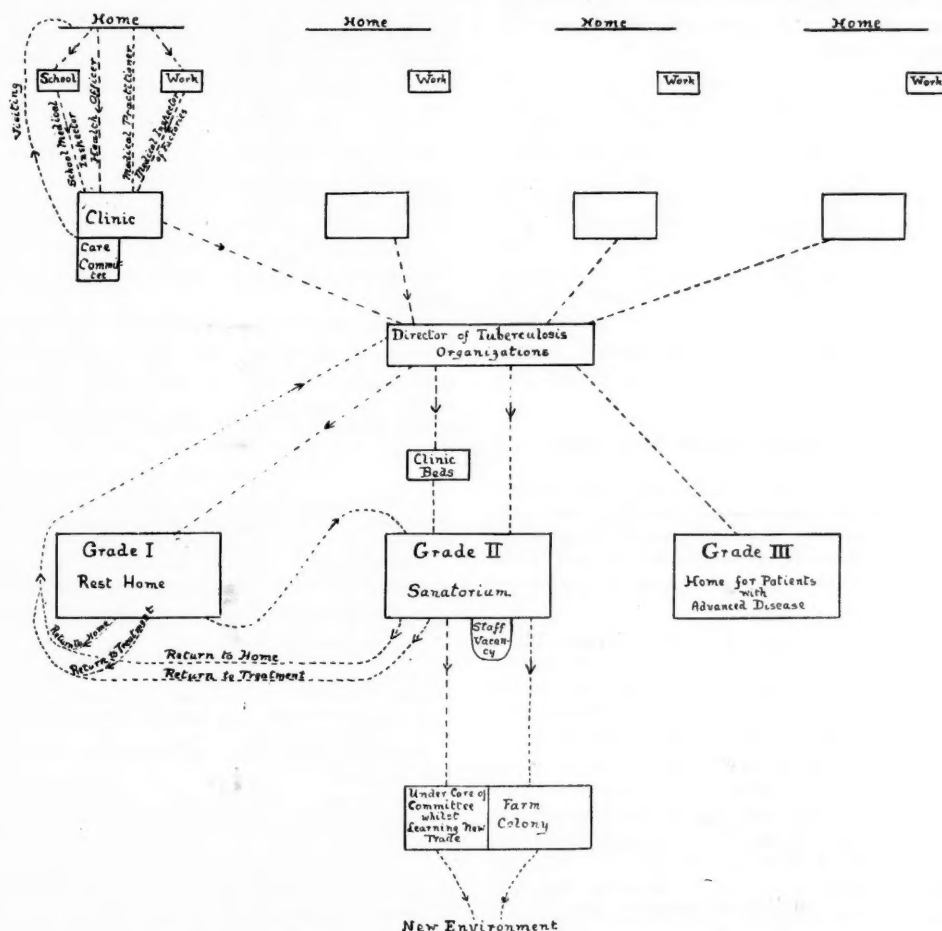
Grade I. is to all intents and purposes a convalescent home and might well be so named. It should be reserved for patients suspected of pulmonary tuberculosis without sputum, or with sputum in which after repeated examinations no bacilli can be detected. There is a very large class of patients who will form this group; it will embrace many who will hesitate to enter a sanatorium as it is today, but who can be persuaded to enter a convalescent home of this nature. Such an institution will repay its cost tenfold, for it will be possible



to send away into the country for a short time, many who have, according to our present knowledge, simply lowered their resistance without actually having become infected and who will return refitted to take their place in the social scale; these persons if they remained at their occupation, might possibly develop the disease. Admission could be reserved for those unable to pay for a period in the country and the length of stay limited. No bed patients would be admitted, but periodical rest and exercise would be enforced and each patient would under-

pulmonary tuberculosis should be undertaken lightly, but rather that when two officers of the organization agree on consultation that the suspicion of infection is well founded in the absence of direct pathological evidence, these patients should be afforded the opportunity of entering upon the treatment in this institution.<sup>(8)</sup>

Grade II. is the sanatorium as it is constituted today. Provision will be made for the reception of patients for artificial pneumothorax, thus entailing the installation of an X-ray plant. At present many



take some portion of the daily work of the home. That they would do so, could be made an agreement prior to admission. The nursing in such an institution would be practically nil, nothing more than supervision being necessary.

There are many who will object to the above class of patient being regarded as suspect and included in a tuberculous organization. However, there is proof that among patients in whom those experienced in the diagnosis of the disease suspect pulmonary tuberculosis, the death rate from pulmonary tuberculosis is greater than in the average civil population. I do not mean to suggest that the diagnosis of

sanatoria in Australia have not an X-ray plant of any description. Graduated labour will be carried out, for unless it is, the scheme of the farm colony will be set at naught. The establishment of graduated labour has a wonderful psychological effect on the tuberculous patient, as by it every stage of improvement from the subsidence of the fever to the entry of the farm colony or discharge to his former environment is signalized by the promotion from grade to grade of exercises and labour.

Perhaps this is the correct place to add a word or two in relation to the possession of compulsory powers of segregation.

The possession of such powers is advisable. The use of the power should, however be retained for glaring cases of danger to the community or to the family by the refusal of the patient to carry out the precautions considered necessary. It is always better, if possible, to work with the cooperation of the patient and it is not often that a medical man thoroughly acquainted with the disease and the psychology of the patient will experience difficulty in having his advice carried out. For the glaring cases it is wiser to possess the powers, but the person compelled against his will to enter a sanatorium is a destroyer of the peace in that institution and interferes with the benefits to others.

Grade III. should be a home for patient with advanced disease for whom no hope can be held out, no matter what form of treatment is adopted. Deaths should not occur in a sanatorium, but rather there should be held constantly before the inmates, an ever increasing and improving condition of health. This should not be achieved by transferring patients going down hill to Grade III., but should be attempted by a graduation of the patients according to expectant results prior to admission to the sanatorium.

The whole question of sanatorium control is more fully dealt with in an article by the writer published in this journal.<sup>(8)</sup>

#### A WORD ABOUT THE ANZAC RED CROSS FARM, JANEFIELD.

Colonization of persons whose condition is that of arrested pulmonary tuberculosis, is a very wide subject and one that has been discussed from every point of view. There is no need here to survey the literature on the subject or to renew the points of discussion.

One fact, however, should be mentioned. There is a farm colony thoroughly equipped, organized and in going condition conducted by the Australian Division (Victorian Section) of the British Red Cross—The Anzac Red Cross Farm at Janefield.

On visiting the farm the writer was at once struck with the fact that it could be readily converted into a civil institution. It will not be long before the military authorities will no longer require this farm. As the numbers of men qualifying for entrance grows smaller, there is a risk of the very complete organization being allowed to dwindle away.

It appears that there is a danger of this happening in the near future.

When a complete organization is under consideration and it cannot be complete without a farm colony, steps should be taken to insure that the institution at Janefield is preserved intact and that it ultimately passes into the control of the civil organization.

#### THE DIRECTOR OF THE TUBERCULOSIS ORGANIZATION.

When, as ultimately will be the case, it is found necessary to establish clinics on a very much smaller scale than has been suggested for the Melbourne clinic at all the hospitals of the larger

country towns, it will become essential to have a director of the organization.

The director will be responsible to some Government Department such as the Health Department, but ought to have a free hand in controlling the campaign, thus making the whole scheme under central control.

His duties will comprise the compilation of statistics of all phases of the campaign. All applications for admission to sanatorium or clinic beds in Melbourne must come before him, the physician to each clinic sending a detailed report concerning each patient when recommending such treatment. Having all the sanatorium beds under his control and the applications for admission also, he can review each case and mark them into grades of urgency and see that the patients are admitted in that order. He will consult with the physician in charge of the clinic beds and then grade the patients as to type of sanatorium suitable. He will also consult the sanatorium officials as to the length of stay of each, visiting the sanatoria frequently, so that the constant flow of patients may be continued to the best advantage to each.

He will also control admission to the farm colony.

Expenditure will come under his supervision, the catering of the various institutions, the supply of drugs and equipment also, thus ensuring that the whole scheme is one of central control.

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# The Medical Journal of Australia

SATURDAY, JANUARY 17, 1925.

## A Retrospect.

### Obstetrics.

OBSTETRICIANS in all parts of the Empire are deeply concerned with the eminently unsatisfactory state of midwifery practice. Efforts are being made to improve the training in obstetrics of students, nurses and midwives and to induce medical practitioners to conduct their midwifery practice with the same care for asepsis and avoidance of trauma as they exercise in other surgical procedures. The necessity for ante-natal supervision and general prophylactic measures has been urged on all practitioners. In Australia coordinated effort is being planned to remedy the existing defects and to bring about a reduction in the amount of suffering and death resulting from child-birth. In England at the Annual Meeting of the British Medical Association held at Bradford in July, 1924, this subject was the subject of a special discussion.

The placenta has been studied both from the normal and from the abnormal aspect. The occurrence of benign tumours of the placenta has been investigated by Scott. The condition known as *placenta accreta* has been described by Polak and Phelan. This is a rare condition, but its study is demanded because it is a fatal one, unless it is recognized at an early stage and dealt with in a suitable manner.

Further investigations have been carried out into the chemistry of the blood in pregnancy and the puerperal condition. All attempts to discover a chemical basis of the pernicious vomiting of pregnancy have proved unavailing.

An excellent contribution to the literature on the subject of the embedding of the human ovum has been published by Teacher. This is compiled on the knowledge gained by a study of a new ovum, the "Teacher-Bryce ovum No. 2." The main points of the previous work of Teacher and of Bryce have been confirmed by the new findings.

An instructive series of twenty-three cases of ectopic gestation has been reported by A. H. Marks

early in 1924. T. Farranridge has described a rare condition, acute hydramnios simulating an acute abdominal infection.

H. H. Schlink has recorded some facts to demonstrate the possibility of the internal and the external migration of the ovum.

### Gynæcology.

There is little to report in connexion with original work on gynæcological subjects carried out during the year 1924. A considerable amount of valuable research has been conducted on the pathology of the various organs of reproduction in the female and progress has been registered in many directions.

Sampson has undertaken a study of the benign and malignant endometrial transplants which occur in the pelvis. He holds the opinion that many of these conditions are the result of the carriage of endometrial fragments into the pelvis by menstrual backflow.

At the Annual Meeting of the British Medical Association a full discussion took place on dysmenorrhœa. The consensus of opinion was that proper hygienic instruction to young girls would result in the elimination of a great deal of this complaint.

Brief reference should be made in this place of the admirable study of malignant disease of the uterus by Marion Wanliss. This study has been carried out on the material collected at the Melbourne Hospital.

Much discussion has taken place concerning the treatment of malignant disease of the uterus, including the cervix, and of the breast by means of deep X-radiation. At the present time few authorities hold the opinion that deep X-ray therapy should be employed in early malignant disease of uterus or breast when operative treatment is available and offers prospects of success. Post-operative radiation is strongly advocated and seems to enhance the chances of ultimate recovery to a considerable extent. In malignant disease of moderate extent surgical intervention offers a gloomy prognosis. The application of deep X-ray therapy appears to improve the prognosis either by itself or when surgical removal is performed



subsequently. In regard to far advanced growths, surgical treatment is powerless and radiation would appear to hold out some hope of cure. It certainly provides relief to the suffering patient and, when the disease cannot be arrested, it lessens the terrors of the long illness.

#### Therapeutics.

Although a great deal of pharmacological research has been carried out during the last twelve months, no new principles of fundamental importance have been discovered and few new drugs of value have been added to the list. In practice the scientific use of drugs for their ascertained physiological actions is becoming more general, although the habit of prescribing fashionable and expensive proprietary preparations while the simpler and more economical active ingredients would probably produce as good if not better therapeutic results, is very persistent.

In regard to digitalis G. A. Sutherland as a result of careful investigations has denied all direct action on the cardiac muscle. He maintains that its virtue lies in its influence on disturbances of the cardiac action, whether in rate or rhythm or both. By its controlling effect on the vagus it slows the production of impulses at the sino-auricular node and the rate of progress through the conducting tissues. This depression of conductivity gives rest to the heart and allows the muscular tone and contractile powers to improve as a result of the ability of the neuro-muscular apparatus to recover spontaneously.

The Eggleston dosage of variation with the weight of the patient has again been recommended as a more scientific method of gauging the requirement of each patient.

Quinidine has been recommended by J. H. Musser in paroxysmal tachycardia and extra-systoles as well as in auricular fibrillation. He considers that the dangerous effects of this drug have been grossly exaggerated. C. C. Wolferth, on the other hand, insists that quinidine should be administered with caution and that it is harmful in simple tachycardia and hyper-thyroidism.

The drug treatment of syphilis continues to provide a fertile field for the manufacturing chemist

and for the clinician who seeks to attract attention to himself by publishing the apparent result of the treatment of a few patients with new pharmaceutical preparations. R. A. Lee has objected to the injection of calomel and mercurial oil into the muscles for syphilis on the ground that depôts are thus established which may provide a source of mercury over a very long time.

The elimination of arsenic after the exhibition of one or other of the arseno-benzol drugs has been found to be through the liver rather than through the kidneys. It has been suggested that glucose should be given to prevent its destructive effects on the hepatic cells. New arsenic and bismuth preparations continue to be produced and vaunted before the older preparations have been adequately tested.

E. Billigheimer has used mercury in the treatment of lethargic encephalitis. In the acute and sub-acute stages the results are claimed to have been striking, but in the chronic stages they are said to have been disappointing. This worker draws a parallel between lethargic encephalitis and syphilis; mercury has a curative action on the inflammatory processes, but exerts no influence on the resulting degeneration of the nerve elements.

"Mercurochrome-220-Soluble" has been used in conjunction with gentian violet in the treatment of septicaemia and local infections. It is injected into the veins. H. H. Young and J. H. Hill claim to have obtained good results. The infections in which a good result was noted, were staphylococcal septicaemia and infections with *Bacillus coli communis*. The dose recommended is five milligrammes per kilogram of body weight.

The alleged diuretic properties of hexamine have been challenged by many Continental and American authorities. Saad has even maintained that in large doses it diminishes diuresis.

Lugol's solution of iodine (5% of iodine and 10% of iodide of potash) given in doses of from 0.3 to 1 mil in twenty-four hours has been recommended for exophthalmic goitre. The tremor, tachycardia and the metabolic rate are said to lessen under the influence of the iodine, but the exophthalmos and the enlargement of the thyroid gland are not visibly influenced.

"Allonal" is a new synthetic drug which has been recommended as an analgesic and hypnotic. It is a combination of allylisopropyl-barbituric acid and phenyl-dimethyl-amino pyrazolon. The usual dose is 0.12 to 0.6 gramme.

Camphor has been studied in America and it is reported that it possesses no action on the circulation in congestive heart failure.

Pilocarpine has been found to promote the flow of urine in reflex retention of urine.

"Luminal" does not seem to have justified expectations of its value in epilepsy.

#### Neurology and Psychiatry.

In the field of clinical neurology during the past year *encephalitis lethargica* has continued to attract more attention than any other disease. Perhaps the most important conclusion from experience is that it may be incorrect to regard as sequelæ many signs of nervous disorder which appear within a few months or even a couple of years of the infection and arise not only in the severe but also in the mild cases. Many authorities are of opinion that these are not sequelæ, but actual recrudescences and that the virus remains active for years and induces intermittent or recurrent processes. Another interesting observation comes from the workers under the Ministry of Health in Great Britain; it is that while enduring mental disorder complicates the disease in children and young adults, it does not often do so in persons of mature age. Encephalitis is reported to be severely epidemic in America and somewhat prevalent in Europe. It is less common in Australia.

In France last year as in America in 1923, neurologists chose disseminated sclerosis for the chief subject of discussion at their annual conference. Though observers with ripe experience dissected the disease with thoroughness, they added little to knowledge and in particular they added no solution of the important pathogenic problem as to the operation of a micro-organismal factor.

In the matter of epilepsy a condition named "pyknolesy" (*πυκνός*: heaped up) has been described and deserves attention. It is a form of minor epilepsy, occurring in "heaps" in children between the ages of four and twelve years; it is

uninfluenced by drug treatment, but happily differs from essential epilepsy inasmuch as it ends in recovery.

Concerning ordinary epilepsy mention may be made of Aldren Turner's authoritative opinion after a study of war material that in causation an inherited or inborn constitutional predisposition to nervous instability is a more important factor than trauma. Not only is the relation between trauma and epilepsy less intimate than was formerly thought, but as Kinnier Wilson has shown, the relation between trauma and organic and functional nervous disease has been and still is, greatly exaggerated.

Progress has been made in the use of X-rays for the purposes of treatment and diagnosis in neurology. Concerning treatment certain basilar tumours of the brain can be favourably influenced by this means. In diagnosis spinal growths may be safely and accurately localized by radiography after the injection of "Lipoidal." Cerebral ventriculography after the injection of air, however, is proving itself to be a dangerous proceeding.

In regard to mental disorders attention has been focussed both in England and in Australia on deliberations not yet completed concerning medico-legal problems. The point in connexion with treatment that has received most recognition, is the importance of attending to all sources of chronic sepsis in the body.

It is difficult to determine whether the work of the late John Irvine Hunter and of N. D. Royle in connexion with the sympathetic innervation of voluntary muscle, with the significance of these non-medullated nerve fibres in plastic tonus and with the application of this newly acquired knowledge to the treatment of spastic paralysis, should be referred to under this caption or under that of morphology, of physiology, of orthopædic surgery or of general surgery. It may perhaps be in place to mention here the later work of Hunter and O. Latham confirming the findings of Kutchitsky of post-ganglionic fibres of the sympathetic system ending in characteristic fashion in voluntary muscle fibres. Hunter showed that the double innervation, medullated and non-medullated, is peculiar in that

some muscle fibres receive only spinal nerve terminations, while other bundles are innervated solely by the sympathetic fibres. The physiological and neurological significance of this observation is very wide. Hunter's other contributions to neurology during the year are of first importance.

#### Ophthalmology.

The subject in ophthalmology that has attracted most attention during 1924, seems to be Gullstrand's slit lamp. A. Vogt has compiled an atlas of slit lamp microscopy of the living eye. Gradle and others have written up the subject in America. Von der Heydt has employed this lamp and has described particularly the corpuscular elements in the aqueous in irido-cyclitis. In fact, there is quite a vogue in new methods of examination. Mayou and Vogt, working with a red-free light, have found that the chorioid becomes less visible and the retina more visible. The disc appears a light green, the macula yellow, the vessels and hæmorrhages stand out prominently and are dark. The most striking feature of all is that the radiating retinal fibres are plainly seen and the presence or absence of pathological changes can be ascertained without difficulty.

Basil Graves has advocated contact illumination for the examination of the anterior segment of the eye and has claimed certain advantages.

In the treatment of luetic optic atrophy S. R. Gifford and J. J. Keegan have tried injections of mercurial compounds into the *cisterna magna* through the occipito-atlantal ligament; they claim some degree of success. At times they have supplemented these injections by intravenous injections of "Salvarsan." It is held that the arseno-benzol drug penetrates the meninges more readily during the reaction.

Lloyd Mills has added another causal agent of iritis to the recognized list, namely *Entamoeba dysenteriae*. He has called attention to the fact that in these amœbic infections diarrhœa is not a necessary symptom; many of the patients are constipated.

E. Stieren has formed the opinion that impacted teeth may play an important part in the ætiology of certain obscure cases of asthenopia. It is his

experience that the impaction of the teeth may cause no obvious symptoms and may be detectable only by X-ray examination.

Three new operations for ptosis have been introduced during the period under review. R. G. Reese forms a horizontal muscular flap which is freed except for ten millimetres in the centre after the skin incision is made. The two ends are drawn up subcutaneously and united with sutures to an incision above the brow. In the Tansley-Hunt method a vertical strip of skin is drawn up to the brow incision. The two lateral triangles of skin are removed. George Young exposes one centimetre of the superior rectus and sutures it to the edge of the tarsus.

R. G. Reese's muscle correction for squint is performed almost exclusively by many surgeons in the United States of America. A portion of the belly of the muscle with the tendon is cut off and the remainder is sutured to the two millimetre stump left at the sclera.

The subject of cataract extraction continues to exercise the minds of ophthalmologists. The controversy still simmers between the exponents of the intra-capsular and those of the cystotomy methods. Affleck Greeves and Foster Moore have performed Barraquer's operation on many patients. Both achieved considerable success, but discovered certain disadvantages of the operation.

A. N. Lemoine and A. E. Macdonald have investigated the phenomenon of hypersensibility to lens protein. Fourteen out of one hundred and sixty-eight persons reacted to the protein. They found that in hypersensitive patients in whom cortical substance had been left behind after removal of cataracts, intra-ocular inflammation developed. This inflammation was avoided by a preliminary desensitization.

#### Urology.

During the past year a great deal of attention has been paid by urologists in the United States of America to the antiseptic action of various dyes in connexion with infections of the urinary tract. H. Young has continued his studies on "Mercurochrome" and "Meroxyl" and advocates their exhibition by mouth and injection into the veins, as well as their local application. J. W. Churchman has



demonstrated that the tri-phenyl-methane group of dyes, of which gentian violet is the best known, is strongly bacteriostatic toward Gram-positive bacteria, while acid fuchsin and its analogues display a selective action against the majority of the Gram-negative organisms. He, too, uses the dyes both locally and intravenously.

J. S. Giscard and other French workers have evinced much interest in the incubation of ejaculated sperm in culture media for the purpose of determining the presence or absence of gonococci in chronic or latent gonorrhœa. Very satisfactory results have been reported of the application of this method.

G. L. Hunner has insisted for thirteen years upon the importance of ureteral stricture as a disease entity. He has now submitted to the medical profession a long list of remote results. He claims that satisfactory results can be obtained in 80% of patients suffering from these remote effects of ureteral stricture. Several surgeons in America, who were opposed to Hunner's views at first, are now becoming reconciled to them. Hunner has recently announced his belief that when ureteral calculus and ureteral stricture coexist, the stricture is almost always primary. This is contrary to the usual teaching.

Further useful research into the question of reflux up the ureter from the bladder has been carried out. In America H. C. Bumpus has discovered urinary reflux in 8% of all patients with urinary tract disease. In France G. Gayet and J. Rousset have studied the same question and have applied the succinct term *l'uretère forcé* to the condition of permanent dilatation of the ureteric orifice as well as of the whole ureter, leading to the regurgitation of the contents of the bladder up to the kidney. Violent and irregular contraction of the bladder wall in association with chronic infection serves to force the ureteric orifice.

H. R. Trattner has devised a water manometer and recording needle connected with a catheter lying in the ureter for the purpose of recording the contractions of the ureter. He has come to the provisional conclusion that contraction of the ureteric wall is not essential for the transmission of urine from the kidney to the bladder.

E. C. Brenner has been successful in the use of a *fascia lata* transplant to replace portion of the urethral canal.

G. MacGowan has introduced a valuable modification of Hamilton Russell's method of excision of urethral stricture. The object of this modification is to reunite the canal in tubular fashion instead of leaving it open as a riband.

R. H. Herbst has advocated the use of radium in the treatment of carcinoma of the prostate, provided that metastases are not present in bone. He has elaborated a definite plan of campaign.

In order to make suprapubic operations safer in old or debilitated patients E. S. Judd and W. R. Meeker in America and R. J. Silverton in Australia have advocated a combined form of sacral and abdominal wall analgesia. The former use para-sacral injections of the individual sacral nerves, while the latter employs a low spinal injection, the effect of which is limited to the sacral nerves.

In suspected rupture of the urinary bladder R. T. Vaughan and D. F. Rudnick have injected air through a catheter into the bladder. This is followed by an X-ray examination with the fluoroscopic screen. Intra-peritoneal rupture can be differentiated from extra-peritoneal rupture by this means.

F. Hinman, D. M. Morrison and R. K. Lee Brown have made valuable and original studies of the condition of the renal arteries in various kidney diseases. They have filled the vessels with a 60% suspension of barium sulphate in gelatine and have examined the specimens with the aid of X-rays. Among many other findings they have recorded that in those pathological conditions associated with obstruction the primary factor of the renal dilatation is ischæmia of the small arteries and not hydrostatic pressure.

E. Retterer has carried out an investigation into the histology of the testes of the dog two years after resection of the *ductus deferens*. He has found that the epithelium of the seminiferous tubules does not degenerate and that the interstitial tissue does not become hypertrophied. He has arrived at the opinion that the tubule epithelium manufactures both the external and the internal secretion of the gland.

## Abstracts from Current Medical Literature.

### OPHTHALMOLOGY.

#### Classification of Diseases of the Chorioid.

MALCOLM L. HEPBURN (*British Journal of Ophthalmology*, September, 1924) deplores the unsatisfactory classification at present employed in the various forms of chorioiditis—based mostly on the ophthalmoscopic picture and too often on the position of the lesion. The correct basis of classification is the pathological one and with this idea before him he divides the chorioid diseases into five groups: Inflammatory, vascular, degenerative, congenital and new growths. Both inflammatory and degenerative types present a recent stage and an old or charred stage. The inflammatory type begins on a localized, oedematous, yellowish-grey swelling in any part of the fundus and is due to some organism or toxin in the blood stream. The result may be panophthalmitis, but if resolution takes place, pigment proliferation occurs in the affected part, giving rise to the black masses around the original site. The inflammatory material changes into the yellowish-white scar. The clinical features are vitreous opacities and lowered acuity and sometimes keratic deposits. In the vascular type changes in the chorio-capillaries or larger vessels cut off the blood supply of the chorioid and the same effect is produced on the retina as in primary pigmentary degeneration. The term retino-chorioiditis is commonly applied to this form. There is no pigmentary proliferation, but the pigmentation is of a fine granular type. There are no vitreous opacities and actual acuity is variable. When white or whitish-yellow areas of moderate or small size surrounded by an even border of pigment are present, the condition is one of hyaline degeneration probably of Bruch's membrane—such as Tay's chorioiditis. The pearly white patch with absence of vessels on its floor is characteristic of the congenital form of coloboma. The detached retina indicates the new growth.

#### Blocking of Nerves in Cataract Operations.

J. M. ROBINSON (*Archives of Ophthalmology*, November, 1924) reviews the various methods of blocking the nerve paths to prevent the action of the orbicularis muscle in cataract extraction. There is much similarity in the several techniques. The *corrugator supercilii* and the angular head of the *quadratus labii superioris* act in an accessory manner in forceful closure of the lids and are difficult to render effectually parietic without diffuse oedema being produced. Experiments with a small rubber balloon in the socket of an enucleated eye evolved the following technique. Injections are made between the supra-

orbital notch and the inner canthal ligaments, secondly between the infra-orbital foramen and the inner canthal ligament and thirdly along a line drawn tangentially to the lateral orbital margin. A 2% solution of "Novocain" is used and the effect is manifest within one to three minutes. If complete anaesthesia of the lids also is required, 0.6 cubic centimetre of 2% solution of "Novocain" is injected posterior to the orbital septum at the supra-orbital notch and again in the region of the trochlear spine and into the infra-orbital foramen. The method is used also for glaucoma operations, operations for ptosis and for dacryocystectomy and plastic operations on the lids.

#### V-Shaped Dissection of Congenital Cataracts.

MCCLUNEY RADCLIFFE (*American Journal of Ophthalmology*, October, 1924) reports eleven cases of congenital cataract in which he undertook operation by Ziegler's method. In using this method the surgeon sees that the pupil is well dilated. The Ziegler knife needle is inserted through the cornea above and the lens is punctured as low down as possible and to the left side of the middle line with a sawing movement. The lens is divided through and through as far up as possible. The knife is then inserted into the lens to the right side of the middle line and another cut made upwards to meet or cross the first cut. The advantages claimed are the rapid absorption, the need for only one operation and quicker and better results.

#### Electro-Cautery in the Treatment of Glaucoma.

C. L. PREZIOSI (*British Journal of Ophthalmology*, September, 1924) operates in the following way for glaucoma. A wide conjunctival flap is dissected down from above and the cornea is split for 1.5 millimetre while the flap is continually pulled downwards. The point of the cautery heated to redness is lightly applied to the limbus of the cornea until aqueous escapes. The flap is stitched back in position. In three patients the results have been good.

#### Pseudo-Glioma.

W. B. INGLIS POLLOCK (*Transactions of the Ophthalmological Society of the United Kingdom*, 1923) relates the history of a child, aged three months, who suffered from the presence of a white mass lying behind the lens with several blood vessels on or in the mass. During the period of observation the lens opacity increased and the anterior chamber became very shallow. The tension was normal and trans-illumination failed to reveal any abnormality. The eye was enucleated for glioma. On bisection of the eye after fixation in "Formalin" the persistent hyaloid artery was seen passing through the vitreous to a lenticular-shaped mass of tissue lying in and indenting the posterior surface of the lens. No tumour was present. The capsule of the lens was

ruptured on its posterior surface and the torn end of the capsule was thrown into a number of folds or coils. Through the gap in the capsule a mass of fibrous tissue had penetrated and had caused the cataractous changes. The fibro-vascular sheath in the posterior surface of the lens contained several aggregations of small round cells indicating an inflammatory condition. The gap in the lens capsule seemed to be due to rupture. The author expresses the opinion that the inflammatory reaction was caused by some toxin circulating in the blood of the fetus. In the absence of tuberculosis or syphilis the only cause found in the mother was the presence of two very septic teeth. The child put on weight immediately after enucleation.

#### Michel Metal Suture in Spastic Entropion.

R. I. LLOYD (*Archives of Ophthalmology*, November, 1924) writes that patients who squeeze their lids with slight provocation, are apt to get spastic entropion. The use of strapping or the application of collodion often fails to correct it and the author has tried and recommends the use of the Michel metal suture. Two clips are necessary to keep the lids from becoming inverted, one at the centre and the other midway to the canthus. They stay in position satisfactorily for forty-eight hours and should then be replaced by two others just beside the holes left by the first pair. Clips internal to the centre of the lid do no good.

### LARYNGOLOGY AND OTOTOLOGY.

#### Indications for Tonsillectomy.

GILBERT H. LANSDOWN (*Canadian Medical Association Journal*, May, 1924) summarizes the indications for tonsillectomy. They are: (i.) Interference with respiration, deglutition or voice production; (ii.) interference with the normal passage of air into and from the middle ear *via* the Eustachian tube, either by displacement of the palate or by direct obstruction; (iii.) if the tonsils are a focus of infection. The author advocates a complete removal by enucleation except in the case of professional singers with enlarged rather than septic tonsils, in which cases he suggests *morcellement*, repeated galvano-cautery puncture and possibly radium.

#### Artificial Heliotherapy for Laryngeal Tuberculosis.

M. OSTERMANN (*Wiener Medizinische Wochenschrift*, August 30, 1924) states that he has treated thirty-two patients with laryngeal tuberculosis with artificial light and had 70% cures observed up to three and a half years. Some of the patients had in addition surgical or medicinal treatment at the request of their medical advisors. The method used at first was to reflect the light from a frontal mirror of nickel on to a laryngeal mirror of

quartz. The length of each sitting, fifteen to twenty minutes, made this method irksome both to doctor and patient. He now used the Kromeyer lamp with a lead filter excluding the short ultra-violet rays to prevent severe local reactions. One minute was sufficient for the initial dose and according to the reaction two or three times weekly for half to one minute. No bad after effects had been observed.

#### Aural Vertigo.

EDMUND HOBHOUSE (*The Lancet*, April 19, 1924) points out that perfect equilibrium is possible when the semi-circular canals have been completely destroyed or rendered functionless by disease or operation. Vertigo does not result from the absence of afferent stimuli, but from their perversion. Hobhouse's experience with over two hundred patients leads him to acquiesce in William Gower's statement that nine out of every ten patients who "seek advice for vertigo" have an aural lesion of some sort. He thinks that a patient with a permanent aural lesion has a permanently lowered threshold for vertigo, though this may never occur or only at long intervals from any such cause as transient dyspepsia or oncoming arterio-sclerosis. Many causes tend to produce light attacks of vertigo, such as the climacteric, arterio-sclerosis, ocular and digestive troubles, but when severe vertigo resembling the vestibular type occurs with one of these conditions, then an aural lesion is always present in addition. The aural condition may have been quiescent for years and a careful inquiry must be made into the nature of the vertigo. The causes which produce severe vertigo apart from aural trouble, are quite rare. It is not constant in either cerebral or even cerebellar tumours and the attacks in insular sclerosis are usually slight. It occurs in ocular troubles, especially paralysis of the fourth nerve. Hobhouse admits that it occurs in functional disease, though very rarely. He has seen it as a severe and disabling symptom in two patients with neurasthenia. That some patients with apparently identical lesions and conditions differ in their susceptibility to vertigo is certain. Goodhart maintains that it only occurs in the neuropathic. The presence of a peripheral lesion differentiates it from epilepsy and migraine.

#### Removal of the Inferior Turbinate Bone.

O STRANDBERG (*Journal of Laryngology and Otology*, February, 1924) advocates for the complete removal of the inferior turbinate bone an incision commenced half way back along the upper border of the bone through the mucous membrane and periosteum on the plane of attachment to the maxilla. It is continued forward and curves downward to reach the cutaneous border of the vestibule and floor of the nose. The incision is then extended obliquely backwards beneath the inferior turbinate to a point corresponding to that at which the

incision commenced above the bone. The soft tissues thus incised are elevated and pushed back from the anterior and middle third of the bone and from the lateral wall of the nasal cavity. With a very short-bladed pair of scissors, such as Struycken's, the bone can be cut at its attachment from front to back.

#### Metastatic Malignant Tumour of the Larynx.

A. LOGAN TURNER (*Journal of Laryngology and Otology*, April, 1924) reports a case of secondary malignant tumour of the larynx originating as a true metastasis from an adenocarcinoma of the right kidney. The patient was a man of seventy who had complained of gradually increasing hoarseness for three months. There was no pain, cough, expectoration, dyspnoea nor dysphagia. The right vocal cord was seen in the laryngeal mirror to be smooth and white and somewhat broader than the left cord. Its movements both in abduction and adduction were impaired. There was a subglottic infiltration lying immediately beneath and parallel to the right cord, presenting a smooth, pale, non-ulcerated surface. There was no glandular enlargement. Three weeks later slight dyspnoea was noticed at night, the right cord was found to be faintly oedematous and immobile in the middle line. Four days later a low tracheotomy was performed and the subglottic region examined by a tube through the tracheal wound. Meanwhile a tumour the size and consistency of an orange had developed in the region of the right deltoid muscle. It was painless. Microscopically it was found to resemble a so-called "hyper-nephroma." A swelling was also found in the region of the right kidney. It was therefore decided not to interfere surgically with the laryngeal growth. The patient died from exhaustion seven months after the first examination.

#### Peptone Therapy in Asthma.

H. P. MILLER (*Illinois Medical Journal*, April, 1924) states that smooth muscle is sensitive to peptone or to any protein to which an animal is sensitized. Smooth muscle which occurs in the lungs in man, may be stimulated with the result that an attack of asthma is produced. Physiological study proves the identical nature of peptone and anaphylactic shock. This might be accounted for by the formation of proteose or peptone in the chain of reactions occurring in anaphylactic shock. Peptone (proteose) treatment starts at the lower or less specific end of the reaction. Protein starts at the beginning of the chain or highly specialized end. Peptone therapy in asthma and allied affections offers a simple and effective mode of treatment. He insists on the desirability of a small initial dose, not greater than 0.2 cubic centimetre given intravenously. The injections are given twice weekly. Eight to twelve injections usually are given before much relief is obtained.

The optimum dose is about 0.2 cubic centimetre below that causing asthmatic symptoms a few hours after an injection.

#### Affections of the Trachea.

W. L. SYME (*Journal of Laryngology and Otology*, June, 1924) states that invasion of the trachea in pulmonary tuberculosis is probably an infrequent incident, whereas a primary tuberculous lesion of the trachea is exceedingly rare. However, the author encountered a patient with hoarseness and cough with seemingly healthy chest and larynx, in whom there was seen an ulcerated patch on her anterior tracheal wall with some thin purulent discharge therefrom. Later early pulmonary disease was found. The trachea resembles the small intestine in its comparative freedom from primary malignant disease, though not to the same extent. He has met with two cases of primary malignant disease of the trachea. One was a columnar-celled carcinoma growing from the anterior wall of the trachea just above the bifurcation, the other a squamous epithelioma, growing in the tracheal wall on the left side at the level of the second and third rings. The author has only met with one case of simple tumour of the trachea, a papilloma growing just above the tracheal bifurcation and extending down into the left bronchus. The commonest cause of tracheal stenosis from pressure is thyroid enlargement and he has seen relief dramatically given by evacuation of a large cyst in the thyroid isthmus in a moribund patient. Pressure may arise from tumours both simple and malignant arising between the upper part of the oesophagus and the trachea. Syme has found an epithelioma in this position causing embarrassment to respiration as well as dysphagia. An interesting case is quoted of a hernia of the anterior oesophageal wall into the posterior part of the trachea, causing severe dyspnoea. He thinks there is a good deal of variation in the "lie" of the posterior tracheal wall; though usually flat, in some cases it encroaches to an appreciable extent on the lumen, but usually does not cause dyspnoea.

#### Tonsillar Disease and Sterility in Women.

ANDRE L. STAPLER (*Illinois Medical Journal*, April, 1924) has observed fourteen cases in which pregnancy followed a tonsillectomy in previously sterile young married women in whom there was no discoverable cause of sterility and who had no desire to avoid conception. Stapler holds that there is some basis for considering the tonsil as an endocrine organ and that as such it is connected with the thyroid and hypophyseal glands, both of which have a known influence on the sex organs and genital functions. He therefore argues that tonsillar disease is concerned in sterility, not only in the female, but probably also in the male.



## British Medical Association News.

### SCIENTIFIC.

A MEETING OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the Royal North Shore Hospital, St. Leonards, on November 13, 1924. The meeting took the form of a series of demonstrations by members of the honorary medical staff.

#### Hodgkin's Disease.

A male patient, aged thirteen years, had been admitted to hospital under the care of Dr. F. GUY GRIFFITHS on January 25, 1924.

The past history given by the patient's relatives was that he had suffered from swelling of the finger joints and wrists and ankles six years previously. His condition had been regarded as rheumatic fever and he had been treated in another hospital. One month prior to admission to the Royal North Shore Hospital swellings had made their appearance in both axillae and then in the neck and groins. The patient had been ill nourished and pale. Fusiform swellings had been present in the first inter-phalangeal joints of the fingers and stiffness of the neck had been present together with limitation of flexion and of rotation of the cervical vertebrae. Discrete soft swollen glands had been present in the neck and in the groins and especially in the axillae. The largest gland in the right axilla had been the size of a golf ball. The liver and the spleen had been much enlarged and the latter had extended to a position half way between the costal margin and the umbilicus. Examination of the chest had revealed dullness at the right apex and at both bases with bronchial breath sounds and diffuse râles. He had been treated with *liquor arsenicalis* in doses of 0.12 cubic centimetre (two minims) three times a day. The dose had been increased by 0.06 cubic centimetre each week. Nothing abnormal had been discovered on examination of the chest by X-rays. A gland had been excised and it had been stated in the pathologist's report that the changes were not sufficient to warrant a diagnosis of lymphadenoma. Blood counts had been made at intervals and considerable changes had been demonstrated. On January 21, 1924, the leucocytes had numbered five thousand per cubic millimetre and the neutrophile cells had formed 64% of the total and the lymphocytes 36%. On February 13, 1924, the leucocytes had numbered twenty-five thousand and on March 4, 1924, three thousand seven hundred and fifty. In all three counts the platelets had appeared normal. While in hospital the patient had had frequent bouts of fever, the temperature rising to 38.4° C. (103° F.). The attacks of fever had also been accompanied by signs of broncho-pneumonia with consolidation in different positions. Joint pains and enlargement of the bronchial lymphatic glands had also been present. On May 1, 1924, there had been dullness over the *manubrium sterni* with d'Espine's sign (reinforcement of the whispered voice over the second and third thoracic vertebral spines) and dullness and faint tubular breath sounds at the left base. At no time had there been any cough or sputum. The irregular fever had ceased on May 15, 1924, and the patient had been discharged in a surprisingly improved condition. Since that time the patient had taken continuously three times a day a mixture containing 0.12 cubic centimetre of *liquor arsenicalis* and 0.12 gramme of potash.

It was pointed out that all signs of lymphadenoma had disappeared and that the patient was well, except for the old arthritis.

#### Pericardial Effusion.

A second patient, a female, aged seventeen years, had been admitted to hospital under the care of Dr. Griffiths on October 3, 1924. The patient had complained of pain in the region of the epigastrium for one week, of a dry, irritating cough for the same length of time and of dyspnoea. Dullness on percussion had extended out from the cardiac dullness into the left axilla and anteriorly up to the *manubrium sterni*. The area of dullness had been triangular rather than pear shaped. The liver dullness had been increased and tubular breathing had been heard at

the angle of the left scapula. Dr. Dight had reported on X-ray examination as follows: "Large shadow in chest corresponds in shape and position with that of a greatly enlarged pericardium (? effusion) or possibly a hydatid cyst occupying a large part of the mediastinum." Dr. Sear had reported as follows: "General appearance of shadow all points radiographically to pericardial effusion." A blood count had been made. The erythrocytes had numbered 3,420,000 per cubic millimetre and the leucocytes 13,275. No eosinophilia had been present. No tubercle bacilli had been found in the sputum. A reaction had been obtained to the complement deviation test for hydatid disease. It was pointed out that the special points of interests were the insidious onset and the absence of fever or severe symptoms despite the huge size of the effusion. This suggested encysted pleurisy or hydatid cyst. Attention was also drawn to the fact that this case illustrated the value of radiography. If the diagnosis of mere pericardial effusion were accepted, it would appear that the radiographer was more successful in interpreting his findings than were the clinicians who diagnosed encysted pleurisy and hydatid, in interpreting the physical signs. The bio-chemists did not claim that the hydatid fixation test was of great value. The insidious onset, the absence of fever and of disabling symptoms, the strength of the apex beat and the cardiac signs were all remarkable in view of the great size of the effusion.

#### Pituitary Tumour.

A third patient, a female, aged twenty-five years, had been admitted to hospital on October 1, 1924. She had complained of amenorrhœa of eighteen months' duration, of languor, giddiness, failure of memory and of fugitive diplopia. She had gained considerably in weight. The patient had been cheerful, large and awkward. It was pointed out that there was slight increase in the size of the jaws, especially the upper. There was some separation of the teeth. A radiogram of the patient's skull was demonstrated and in this was clearly seen the shadow of a *sella turcica* which was considerably enlarged.

#### Sarcoma of the Ovaries.

DR. J. L. T. ISBISTER showed a female patient, aged sixteen years, who had been admitted to hospital on October 6, 1924, complaining of a swelling of the abdomen of one month's duration. The patient had stated that the tumour started in the lower part of the abdomen and grew rapidly. She had had no pain until a couple of days before admission. She had not vomited. She had lost 6.3 kilograms (one stone) in weight during the previous two months. Her menstrual periods had been irregular. They had started twelve months prior to the onset of symptoms and one or two periods had been missed. Dysmenorrhœa had occasionally been present. The last menstrual period had occurred two months prior to admission to hospital. Micturition had been normal. Examination on admission had revealed the presence of a hard rounded tumour the size of a child's head extending to 2.5 centimetres above the umbilicus and larger on the right side than on the left. The patient had been examined under anaesthesia on October 8, 1924, *per vaginam*. It had been found that the tumour extended down to within 3.75 centimetres of the vulva, that it was hard and filled the pelvis like an advancing fetal head. Abdominal section had been performed. The incision had been made just to the right of the middle line. A sarcoma of the right ovary had been found extending from the pelvic floor almost to the right costal margin. Many vascular adhesions had been present and enlarged glands in front of the spine. The right tube had been buried in the tumour and the fimbriated end had been easily seen at the far end. The uterus had been small and had been stretched across the anterior surface of the tumour. The left ovary had also been affected and had been half the size of the closed fist. It was of a steel grey colour and had been removed. The left tube had been normal. The large tumour had been inoperable and some difficulty had been experienced in closing the abdomen. Dr. Walton Smith had examined the left ovary and had reported as follows: "The tumour consists of small and large masses of large round cells surrounded by a fibrous stroma so that the histological appearance closely resembles an en-

cephaloid carcinoma. The cells, however, may be of connective tissue origin, in which case the tumour is a sarcoma (alveolar type)."

#### Hydatid of Lung and Pulmonary Tuberculosis.

DR. W. COTTER HARVEY showed a male patient, aged forty-six years, who had been admitted to hospital on June 30, 1924, and discharged on October 25, 1924. The patient had complained that on May 27, 1924, he had felt a sudden rush of blood to the head while at work. He had had a severe attack of coughing which had lasted half an hour. He had brought up half a cupful of yellow phlegm. This had been partly clear and partly mixed with froth. No membrane and no blood had been present in the sputum. After two weeks the patient had felt better, but had been unable to work. At the time of admission he had complained of persistent cough, the expectoration of excessive sputum, loss of weight and general malaise. Clinical examination had suggested the presence of tuberculosis and possibly in addition the presence of hydatid on the right side of the chest. A radiological examination had been made by Dr. Dight and he had reported as follows: "In left side of chest mottling suggests pulmonary tuberculosis; on right side a distinctly round shadow suggests large hydatid cyst." A reaction had been obtained to the complement deviation test for hydatid disease and the sputum had contained tubercle bacilli, hydatid hooklets and membrane. The leucocytes had numbered 7,000 per cubic millimetre and the percentage of eosinophile cells had been three. No reaction had been obtained to the Wassermann test.

On September 3, 1924, two months after the patient's admission, Dr. Bligh had made an incision under local anaesthesia in the right axillary line over the third rib. Section of the rib had been removed and the cyst opened. Countless daughter cysts had been removed and a drainage tube inserted. For the following week the patient had coughed numerous cysts through the tube. Two weeks later Dr. Bligh had made another incision in the right axillary line over the fourth rib. Local anaesthesia had again been used and a portion of the rib had been removed. Only a small amount of fluid had been evacuated. A reaction had also been obtained to the complement fixation tests for hydatid disease after the performance of the operations. The radiologist's report after the operation had been as follows: "Density much less, due to removal of contents." The patient had steadily gained weight after the operations and at the time of discharge tubular breathing and ægophony had been present.

#### Pneumonokoniosis.

Dr. Harvey also showed a male patient, aged thirty-six years, a rock-chopper, who was an out-patient at the hospital. He had been working in sandstone in Sydney for fifteen years. His father and mother were alive and well as were his wife, one brother and two children. One sister suffered with bronchitis and three aunts had died of phthisis. The patient had previously suffered from pleurisy with effusion, bronchitis and influenza. Inquiry into the patient's history further elicited the facts that he had suffered from breathlessness on exertion for six months and that whitish lumps had been mixed with black material in his sputum. He had had no hæmoptysis and no tubercle bacilli had been found in his sputum. He had vomited with his cough. He had lost 6.3 kilograms (one stone) in weight during the previous twelve months. He had suffered from pain in the left side for three weeks and had also had frequent attacks of asthma.

Examination on July 31, 1924, had revealed that expansion was very limited, that the breath sounds were weak and that the expiratory sound was prolonged and that rhonchi were audible in all parts of the lungs. On October 23, 1924, "roaring expiration" had been heard and the breath sounds had been harsh and prolonged and typical of silicosis. The radiologist had reported as follows: "Widespread pneumonokoniosis (silicosis). I do not think any tuberculosis added."

#### Von Recklinghausen's Disease.

DR. GEORGE R. HAMILTON showed a male patient, aged twenty-two years, who had been admitted to hospital on

September 30, 1922. He had complained of headache of two weeks' duration and had been vomiting for one week. He had also suffered from small, soft nodules on the abdomen and thorax. His condition had been regarded as probably being typhoid fever. No response, however had been obtained to the Widal test. The blood on culture had proved to be sterile; the leucocytes had numbered 24,275 per cubic millimetre. The urine had contained no pus, no red cells and no casts. The serum had not reacted to the Wassermann test. A nodule had been excised and on examination has been found to consist of fibrous tissue. Dr. Temple Smith had examined his eyes and had reported as follows: "There is a definite partial (temporal) optic atrophy and of a type that is certainly secondary to a neuritis. There is no apparent field defect." On discharge from hospital on November 29, 1922, the patient had still complained of the nodules, though the vomiting and headaches had ceased.

Dr. Hamilton pointed out that the patient's condition was typical of von Recklinghausen's disease. A diagnosis of cerebral tumour had been made. Dr. Hamilton said that he believed that this was the first instance of the association of von Recklinghausen's disease with a cerebral tumour. Other skin lesions had been found in association with cerebral tumours and he intended to make further investigation into the patient's condition with a view to a further report.

#### Nævus Pigmentosus.

Dr. Hamilton's second patient was a boy, aged eleven years, who at birth had manifested three of the larger nævi which were demonstrated. It had been stated that when the child was six months old he had been allowed to lie in the sun and that from that time on he had gradually become covered with small black spots. Those on the neck had become darker in colour. Dr. Hamilton pointed out that the spots were almost uniformly distributed over the surface of his body. They were black in colour and appeared to consist of melanin pigment. Dr. Walton Smith had examined a section of one of the spots and had reported as follows: "The section shows a considerable deposit of pigment mainly in deeper layers of epithelium also present in dermis. No evidence of malignancy." Dr. Hamilton expressed the opinion that possibly an intracranial tumour of the *corpus striatum* or other region was present.

#### Obscure Nervous Condition.

DR. F. J. BRIDGES showed a male patient, aged thirty-seven years, a dairyman, who had been admitted to hospital on September 19, 1924. He had complained of giddiness and vomiting of two weeks' duration. He had given a history of the heavy consumption of alcohol and of moderate smoking. He had had gonorrhœa five years previously and had had whooping cough, bronchitis and typhoid fever in infancy. Five years previously he had lost the use of one leg for one month and had dragged the leg when he walked. On one occasion six years previously and on another two years previously he had had transient attacks of the blurring of vision in the left eye.

The patient had begun to vomit and suffer from giddiness three weeks before admission to hospital. The vomitus had consisted chiefly of foodstuffs and at the time of demonstration the vomiting had ceased. The giddiness had persisted, except when the patient was lying down. He had been "seeing double." The bowels had not acted for seven days after the cessation of the vomiting.

It was pointed out that the patient was bright and answered questions intelligently. His memory was good. His speech was somewhat thick and slow. No intention tremor was present. The first and second cranial nerves were normal. The pupils were equal, though on admission they had been unequal, the left being smaller than the right. They reacted to light and accommodation. Lateral and medial nystagmus was present in the right eye. Paralysis of the external rectus muscle was present together with paresis of the internal rectus of the left eye. Diplopia was present. The fifth nerve was normal. Paresis of the right side of the face was present, there was no hyperacusis. Vertigo was present, there was no deafness or tinnitus. The ninth, tenth, eleventh and twelfth nerves were normal. The patient had a reeling gait and

had difficulty in turning, especially to the left. No intention tremor was present. Romberg's sign was present and the patient always fell back and to the right. The sensory functions were normal, except for disturbance of thermal sensation of the right leg. The knee jerks were exaggerated, the plantar reflex was extensor in type, slight ankle clonus and patellar clonus were present. The circulatory, alimentary and respiratory systems were normal. Dr. Temple Smith had reported on the eyes as follows: "There is definite partial atrophy on left and right sides. There is not unequivocal evidence of this being secondary to a neuritis, but I incline to this view rather than to it being a primary one." No evidence of new growth had been found on X-ray examination of the cranium. The serum had not reacted to the Wassermann test. The spinal fluid had not been characterized by increase in cellular content. It had contained no pus cells or organisms and had not reacted to the Wassermann test.

#### Myxœdema.

A female patient, aged thirty-eight years, had been admitted to hospital on November 11, 1924. She had complained of amenorrhœa of twelve years' duration. She had complained of general malaise which had been worse during the preceding nine months. The tone of her voice had changed and her speech had become increasingly slow. Her complexion had changed, her skin had become dry and her hair had fallen out. She had been short of breath on exertion. Examination on admission had revealed the fact that her teeth were unhealthy. She also suffered from pyorrhœa. It was pointed out that the cardiac dulness was not increased, the first sound at the mitral area was accentuated and no murmurs were present. No abnormality could be detected in the alimentary or respiratory systems. The pupils reacted to light and accommodation. The knee jerks were exaggerated. The plantar reflex was flexor in type and no ankle clonus was present. The red blood corpuscles numbered 3,336,000 per cubic millimetre, the hæmoglobin value was 50% and the colour index was 0.75. The leucocytes numbered 5,300 per cubic millimetre and a relative lymphocytosis was present. Anisocytosis and poikilocytosis had been found. No polychromasia was present and neither nucleated red cells nor myelocytes had been seen.

#### Tuberculous Scleritis.

DR. E. C. TEMPLE SMITH showed a female patient, aged thirty-six years, who had been treated as an out-patient since September 2, 1924. She had complained that her right eye had been inflamed at intervals since April, 1924. It had been very bad for one week. On examination a prominent yellow nodule had been found in the sclera. This had been associated with vascularity and corneal opacity. The pupil had been small and the eye tender to touch. The tension had been normal. Considerable ciliary injection had been present and the lids had been healthy. The patient's serum had not reacted to the Wassermann test. Atropine had been used and although the pupil had not become dilated, its use had been continued. On September 25, 1924, injections of tuberculin had been undertaken. A dose of 0.000003 cubic centimetre of diaplyte vaccine had been used. The injection had been repeated once a week and the dose had been gradually increased. On the occurrence of a reaction a smaller dose had been given. The patient had already received eight injections and very considerable improvement had resulted.

#### Hypertrophy of sixth Cervical Transverse Process with Nerve Involvement.

DR. S. H. SCUGALL showed a patient, aged thirty-five years, who was suffering from hypertrophy of the sixth cervical transverse process. The history of this patient has been published in THE MEDICAL JOURNAL OF AUSTRALIA, December 13, 1924 (page 628).

#### Spastic Paraplegia with Sympathetic Ramisection.

Dr. Scougall also showed a series of patients on whom he had performed the Royle operation of sympathetic ramisection.

The first patient was eight years of age and had been subjected to the operation of cervical sympathetic ramisection on July 28, 1924, on account of congenital mono-

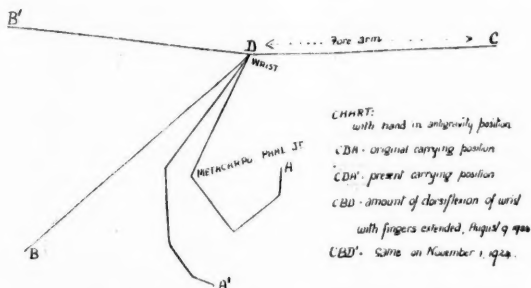
plegia of the right arm. Three days later improvement had taken place in the extensor muscles of the wrist and the fingers could be extended when the wrist was passively dorsiflexed. One month later improvement in supination had occurred. Three months later the patient had been able to extend the arm above the head, at the same time flexing and extending the fingers with the wrist dorsiflexed. At the time of demonstration the patient was unable to hold anything firmly in the hand while performing other movements. Dr. Scougall said that the patient's inability to concentrate and her excitability made re-education difficult.

A male patient, aged twenty-nine years, who had been admitted on May 3, 1924, with a history of a gunshot wound in the neck in 1916. This had caused a right hemiplegia. The patient had been examined by X-rays and the radiologist had reported as follows: "Viewed laterally bullet lies in plane of tip of spinous process of sixth cervical vertebra; viewed antero-posteriorly it lies in plane of left margin of this vertebra." Dr. Scougall described the condition of the patient prior to operation. The left upper extremity had been held in a position of abduction at the shoulder, the elbow had been flexed at about a right angle, pronation had been present and extreme flexion of the wrist and fingers. The distribution of the excessive contractile tonus had been seen in the attitude assumed. Dr. Scougall said that plastic tonus had been more noticeable in this patient than in any of the others whom he showed. Considerable resistance had been offered to any passive movement, but any attitude imposed tended to be maintained. This had applied when alternate fingers were flexed and extended, when any one digit was extended, when the terminal phalanx was flexed and when the metacarpo-phalangeal joints were flexed and the inter-phalangeal joints were extended. A considerable degree of active movement had been present in the whole limb, the movement had been incoordinated and most limited in the hand. The patient's attempts at any movement such as extension of the thumb had met with resistance necessitating excessive effort with overflow of impulse so that he had been unable to do so without associated extension of wrist and fingers. A similarly characteristic attitude had been present in the lower limb, the foot had been in a position of extreme equino-varus and the toes had been flexed. Ankle clonus had been present, the patella clonus had appeared to be without limit and a coarse tremor had accompanied movement. Dorsiflexion of the foot had been slow, not dissociated and had been accompanied by clonic contraction of the posterior group of muscles. In walking the patient had advanced by swinging the limb from the hip and with the attitude of the foot being maintained. Pain had been caused by the weight coming down on the doubled up toes. This had made unbearable any effort to walk a considerable distance. He had obtained relief from the contraction of the toes by pressing his hand on the dorsum to flatten them out. His balance had been defective and he had walked up stairs by advancing the unaffected leg only. There had also been habitual constipation.

Lumbar sympathetic ramisection had been carried out on May 12, 1924, and cervical sympathetic ramisection on July 22, 1924. In the former operation the lower part of the sympathetic cord had been difficult of access and after avulsion of the grey rami, the cord had been severed at the fourth ganglion. This had been done at the suggestion of Professor Hunter, who had assisted at the operation, as no operative procedure had been planned for the other side. The white ramus from the first lumbar ganglion had also been avulsed. No interference with the bladder function had been observed, but the bowel had begun to act as a rule twice daily.

Two weeks after operation the patient had been able to balance on the affected limb and been able to walk backwards and sideways. Six weeks after operation he had been able to walk upstairs by alternate progression. The spasmodic contraction of the flexor of the toes had troubled him less as time went on and at the time of demonstration rarely troubled him except in circumstances of mental strain. Active movements had increased in power and amplitude and his gait had also improved. Dr. Scougall said that the patient dorsiflexed his foot and bent his knee when walking. He could walk five to ten miles





without unusual fatigue. There was an increase of 2.5 centimetres in the circumference of the leg at the calf. Tremor was lessened and appeared only in fatigue. The patient had recently been able to board a motor 'bus which though it had only just started, was in motion. On the day following the operation on the hand the patient had been able to dissociate the thumb into flexion, but had not been able to bring it back. Within a week he had been able to dissociate each finger from extension. In three weeks he had been able to extend again the digit thus dissociated. The action of the intrinsic muscles had improved in addition to those associated with gross movements. Using the affected limb he had been able to drop a ball instantaneously, bounce the ball against a wall and often catch it again and throw a ball vigorously to the ground. He had been able to turn a door handle and close the door smoothly and quietly and had also been able to turn off and on an electric light switch. The arm was usually carried without abduction at the shoulder and with the usual extension of the elbow joints. Splinting had been used to overcome structural shortening and to rest the overstretched groups of muscles. Dr. Scougall said that slow improvement was still being maintained. The patient's changed outlook had probably been a factor in his greater care of himself in his habits of temperance and dress. The accompanying chart illustrates the improvement in the movements of the hand and wrist after operation.

Dr. Scougall's third patient was a man, aged nineteen years, who had suffered from a right hemiplegia following an injury when six months old, the right upper limb having been chiefly affected. The arm had presented considerable atrophy, but otherwise the condition had been very similar to that of the previous patient. Contractures, however, had been more noticeable and structural shortening had been more in evidence. The most prominent contracture had been that associated with pronation, contracture at the wrist and fingers had been only slightly less. On February 25, 1924, the operation of cervical sympathetic ramisection had been undertaken. Splinting had been used to correct gradually structural shortening and to rest over-stretched groups of muscles. A few days after operation minimal movements had been obtained in the extensors of the wrist and grosser movements of the arm had been easier of performance. The patient had been treated for six months and had then ceased attending. During that time he had gained sufficient supination to turn the handle of a door, but complete supination even of a passive nature had not been gained. The other movements had improved in power and amplitude, but extension of the wrist had sometimes been hampered by a simultaneous contraction of the flexor muscles. Ultimately the intrinsic muscles of the hand had begun to functionate separately, but coordination had not been attained. Re-education in this patient had been more difficult in view of his mentality and the longer period during which the disability had existed.

Dr. Scougall's fourth patient was a boy, three and a half years old. The disability in this patient had been present since birth, the right arm and leg being affected to a considerable extent and the left leg to a less extent. The contractile tonus had been so great and the plastic tone so little in evidence that it had been doubtful whether operation was indicated. Dr. Royle had seen the patient and had regarded the condition as a hemiplegia; he had

expressed the opinion that improvement would result from operation. The child had not been able to stand and there had been much deformity. There had been no clonus and the knee jerk had been elicited with difficulty. Dr. Sear had examined the patient by X-rays and had reported as follows: "Some thinning of the vault, but otherwise no definite evidence of hydrocephalus." Dr. Fullerton had likewise reported: "Some suggestion of a mild hydrocephalus." Right cervical ramisection had been performed on September 8, 1924, right lumbar ramisection on September 29, 1924, and left lumbar ramisection on October 20, 1924. In the first operation added difficulty had been caused by the anomalous position of the trunk of the first thoracic nerve. This had not crossed the neck of the first rib, but had run beneath the rib and had occupied a position more posterior and inferior than was usually the case. It had been out of sight in the usual dissection, it had been situated just behind the posterior edge of the neck of the rib, but the lung had been readily stripped forward and so a deeper view had been obtained. The *tendo Achillis* had also been elongated on each side. The re-education process had just been started. No appreciable change had so far occurred in the strabismus which had been present prior to operation.

Dr. Scougall's fifth patient was a boy, aged five years. He had been submitted to the operation of cervical sympathetic ramisection for a spastic condition of the left hand which had followed a radical operation on the right mastoid nine months previously. Dr. Scougall pointed out that the patient had not improved as much as the "spinal case" in the series. This was contrary to expectation. The improvement, however, was definite and the patient was using the hand much more. The inability of the patient to concentrate and his general mentality probably accounted for this lack of further gain.

### Anterior Polio-Myelitis.

Dr. Scougall also showed a male patient, aged nineteen years, whose disability according to the mother's account had occurred suddenly when he was twelve years old. She had made him do exercises for what she described as "round shoulders." Dr. Scougall pointed out that the patient was of fine physique and had powerful upper limbs. These had not been of full use to him. He had come complaining of the lump on his back and of inability to raise his arms shoulder high. The patient was a plumber and was required to do some heavy lifting. There was nothing of note in the personal or family histories. Upon examination winged scapulae had been found on both sides. The *serratus anterior* muscle had been picked out on each side and also the rhomboid muscles. There had also been a perceptible wasting in the left *sacro-spinalis*. The reaction of degeneration had been obtained in the rhomboids. Dr. Scougall said that he had not seen recorded any instance of double winged scapula due to anterior polio-myelitis without the extensive involvement of other muscles. Dr. Royle had seen the patient with him and had concurred in the diagnosis. On the right side the insertion of the sternal part of the *pectoralis major* muscle had been removed and transplanted into the inferior angle of the scapula on October 20, 1924. It was his intention to adopt a similar procedure on the other side. The condition of the clavicles should be noted. Both were prominent and hypertrophied, especially at the sternal end. The patient did his lifting by inclining his body and the weight was borne through a longitudinal stress on the clavicle, there being nothing to fix the scapula posteriorly.

## Public Health.

## ROYAL COMMISSION ON PUBLIC HEALTH.

As announced previously the following are the members of the Royal Commission recently appointed by the Commonwealth Government: SIR GEORGE SYME, DR. F. S. HONE, DR. R. H. TODD, DR. JANE S. GREIG and the HONOURABLE S. R. INNES-NOAD.

The terms of reference of the Commission have recently been published in the *Commonwealth of Australia Gazette*. The Commission is to inquire into and report upon public health as a matter for legislation and administration by the Commonwealth, in conjunction with the States where necessary and more particularly with respect to:

- (a) The coordination of Medical Services of Commonwealth Departments in regard to all matters affecting public health;
- (b) the cooperation of Commonwealth and State health authorities;
- (c) the prevention of the outbreak, development or spread of disease in the Commonwealth;
- (d) the prevention of venereal disease and the exercise of control over and the treatment of persons suffering from venereal disease;
- (e) uniform legislation with regard to purity of food and drugs;
- (f) maternity hygiene and child welfare;
- (g) industrial hygiene;
- (h) the encouragement and development of research work;
- (i) the relationship which should exist between public health authorities and medical practitioners in regard to the prevention of disease;
- (j) the relationship which should exist between public health authorities and other public authorities rendering medical services; and
- (k) the publication of information relating to matters concerning public health.

Sir George Syme has been appointed Chairman of the Commission.

### Obituary.

#### LUCIUS WATSON HARVEY.

It was with great regret that the many friends of Dr. Lucius Watson Harvey heard of his death which occurred suddenly at Geneva on January 3, 1925.

Lucius Watson Harvey was born at Passage West, County Cork, Ireland, in 1872. He was the son of the late William Watson Harvey, of Cork, and received his early education in that city. Having chosen medicine as his career, he studied at Queen's College, Cork, and finally became licentiate of the Royal College of Physicians and of the Royal College of Surgeons of Edinburgh in 1893. In the same year he also secured the diploma of licentiate of the Faculty of Physicians and Surgeons of Glasgow. He subsequently received a hospital appointment in Cork and held it for twelve months. It was his intention at this time to enter the Indian Medical Service, but while he was studying for the entrance examination he became severely ill with influenza and had to give up all idea of going to India. During his convalescence from this illness he met his future wife, Miss Hilda Leibius, an Australian, who was travelling in Ireland with her mother. It thus followed naturally that Lucius Watson Harvey came to Australia in 1894. He began practice in Grenfell, New South Wales, and married Miss Leibius in 1896. In 1899 he moved to Manly and laid the foundations of a practice which he carried on for many years with honour to his profession and to himself and with benefit to his patients. He became an honorary medical officer to the Manly Cottage Hospital and achieved considerable success, more particularly in the surgical side of his work.

Lucius Watson Harvey had many sterling qualities which endeared him to his patients and commanded the respect of his colleagues. He was naturally quiet and unassuming, but could be bluntly frank and outspoken when occasion demanded it. During the Great War he was engaged in home service for twelve months and was for a time medical officer at the Bathurst Camp. In March, 1917, he was compelled to relinquish practice in Manly owing to ill health and after visiting America, he practised quietly at Leura on the Blue Mountains. In April, 1924, his health again failed him and he went abroad hoping to recover it. While he was at Geneva he died quite suddenly.

Lucius Watson Harvey had many interests apart from his professional work. He played tennis and golf and took an active part in public affairs in Manly. He was for many years President of the Manly Literary Institute.

He leaves a widow and two unmarried daughters who were with him at the time of his death. His son, Dr. Cotter Harvey, is practising in Macquarie Street, Sydney. The sympathy of many both in the medical profession and outside it will be extended to them.

#### ERIC BURTON REED.

We regret to announce the death of Dr. Eric Burton Reed which occurred at Bundaberg, Queensland, on December 30, 1924.

#### MARGARET AMELIA CORLIS.

It is with regret that we have to announce the death of Dr. Margaret Amelia Corlis which occurred at Grafton, New South Wales, on January 6, 1925.

### Naval and Military.

#### APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Nos. 89, 91 and 93, of November 27, December 11 and 18, 1924:

#### PERMANENT NAVAL FORCES OF THE COMMONWEALTH (SEA-GOING FORCES).

Appointment.—Lionel Lockwood, M.B., B.S., is appointed Surgeon Lieutenant (on probation), dated 12th November, 1924.

#### AUSTRALIAN MILITARY FORCES.

##### First Military District.

##### *Australian Army Medical Corps.*

The provisional rank of Captain A. D. McKenzie is confirmed.

##### *Australian Army Medical Corps Reserve.*

Honorary Captain R. M. Thomson is transferred to the Australian Army Medical Corps Reserve, 2nd Military District, 20th November, 1924.

##### Second Military District.

##### *Australian Army Medical Corps.*

The provisional ranks of Lieutenant-Colonels J. J. Hollywood and R. A. P. Waugh, and Captains R. A. Money, M.C., S. U. Gentile and L. J. Scott are confirmed; Lieutenant-Colonel J. J. Hollywood to be supernumerary to the establishment of Lieutenant-Colonels, with pay and allowances of Major, 10th October, 1924; Major E. H. Rutledge is restored to the authorized establishment of Majors, 10th October, 1924; Major T. F. Brown, D.S.O., V.D., is transferred to the Unattached List, 10th October, 1924; Major F. McIntyre, M.C., is transferred to the Reserve of Officers, 10th October, 1924.

To be Captain (provisionally)—John Cappie Shand, 10th November, 1924.

Major L. Cowlshaw is appointed from the Reserve of Officers and to be supernumerary to the establishment of Majors, with pay and allowances of Captain, 1st November, 1924.

##### *Australian Army Medical Corps Reserve.*

Honorary Captain R. M. Thomson is transferred from the Australian Army Medical Corps Reserve, 1st Military District, 10th November, 1924.

tary District, 20th November, 1924. The resignation of Honorary Major E. A. Brearley of his commission is accepted, 10th November, 1924.

The resignation of Honorary Major W. C. Mansfield of his commission is accepted, 19th November, 1924.

### Third Military District.

#### *Australian Army Medical Corps.*

Major H. J. Williams, D.S.O., is seconded whilst attending a post-graduate course in England, 1st May, 1924.

Captain C. W. Courtney is transferred (provisionally) from the 5th Battalion, 4th Division, with regimental seniority in his rank as from date of transfer, 30th September, 1924. To be Captain (provisionally)—Victor Rupert Delany, 1st October, 1924; Captain H. L. Stokes is seconded whilst attending a post graduate course in England, 13th March, 1924.

Major J. C. Campbell, D.S.O., is restored to the authorized establishment of Majors, 1st August, 1924; Captain (provisionally) E. Bailhache is transferred to the Australian Army Medical Corps Reserve and to be Honorary Captain, 30th October, 1924.

#### *Australian Army Medical Corps Reserve.*

Honorary Major A. V. M. Anderson and Honorary Captain P. D. Fethers are retired under the provisions of Australian Military Regulation 152 (1), 28th October, 1924.

#### *Reserve of Officers.*

To be Major—Honorary Major W. K. Hughes, from the Australian Army Medical Corps Reserve, 1st November, 1924. To be Captains—Honorary Captains W. E. O'Hara, H. T. Hamilton, D. G. M. Teague, H. M. James, F. L. Nance, R. W. Lawrence and R. D. Althison, from the Australian Army Medical Corps Reserve, 1st November, 1924.

#### AWARDS OF THE COLONIAL AUXILIARY FORCES OFFICERS'

##### DECORATION.

#### *Australian Army Medical Corps.*

Colonel R. Fowler, O.B.E.

#### *Reserve of Officers.*

Captain A. E. Syme.

### Fourth Military District.

#### *Australian Army Medical Corps.*

To be Captain—Honorary Captain R. W. Hogg, M.C., from the Australian Army Medical Corps Reserve, 1st October, 1924. Captain P. W. Rice is transferred to the Reserve of Officers, 1st October, 1924. The provisional rank of Captain P. S. Messent is confirmed.

#### *Australian Army Medical Corps Reserve.*

Honorary Major W. A. Giles and Honorary Captain C. H. Souter are retired under the provisions of Australian Military Regulation 152 (1), 11th October, 1924.

### Fifth Military District.

#### *Australian Army Medical Corps.*

To be Major—Captain A. Juett, 10th October, 1924.

### Sixth Military District.

#### *Australian Army Medical Corps.*

Major J. Sprent, M.C., is transferred to the Reserve of Officers, 4th November, 1924.

## Correspondence.

### THE ALCOHOLIC QUESTION.

SIR: I would venture to suggest that it would be highly desirable that a pronouncement on the alcohol question should be given by the medical profession in Australia. This substance plays such an enormous part in the pro-

duction of disease that the public are rightly entitled to guidance in the matter of its consumption.

I remember more than thirty years ago hearing Sir Dyce Duckworth, who was the protagonist of so-called moderation, laying down two rules for the consumption of intoxicants: (1) That the maximum amount should never be more than one and a half or two ounces of absolute alcohol; (2) that this should be taken after the day's work is over and preferably with a meal. Since then there has been much research into the action of alcohol on the tissues and functions of the body, and the reputation of this drug has not improved under the investigation. Some years ago as a result of a medico-actuarial investigation including forty-three American life insurance companies, the combined experience of users of alcohol has been compiled and these facts emerged:

(a) Very moderate drinkers, taking two glasses of beer or one of whisky daily, 18% mortality in excess of average; (b) moderate drinkers with history of occasional excess in the past, 50% mortality; (c) steady drinkers, but accepted by companies at standard risks, 86% mortality.

Consideration of these figures must have influenced Dr. Charles H. Mayo, the famous surgeon, in his presidential address to the American Medical Association in 1917, when he stated that the only legitimate use for alcohol was in the arts and sciences and that its use in medicine had become greatly restricted because other less menacing drugs could be used instead. He also said that the medical profession would welcome national prohibition.

Again the president in 1918, Dr. Bevan, said: "There can be no doubt that the greatest single factor we can control in the interests of the public health of the nation, would be the elimination of alcoholic drink."

This is a saying—hard perhaps—but one we of the medical profession in Australia might well ponder over. In the work issued recently by Professor Starling he lays most emphasis on the sedative effect of alcohol and claims that moderate consumption adds to the joy of living, hinting that total abstainers are rather melancholy and spiritless creatures. This has made me curious to know at what period of life is it necessary to commence taking alcohol in order to make the most of our days.

Should we prescribe it for school children in order to insure for them a fuller existence or for young people just going out into the world or for young couples at the beginning of their married life or for child-bearing women or worried business men?

If warmth and radiance of life in its fullness is unattainable to any or all of these classes without alcohol, surely it is our duty if we see eye to eye with Professor Starling, to urge the consumption of intoxicants upon them.

The subject is a very big one and is fruitful of endless controversy. However, since we spent in New South Wales alone last year between eleven and twelve million pounds on alcoholic liquors, we might well consider whether some of this enormous expenditure might not be diverted to other purposes.

I shall be interested to see if any of your correspondents feel as I do upon this matter.

Yours, etc.,

RICHARD ARTHUR.

211, Macquarie Street, Sydney,  
December 30, 1924.

### THE PROCESS OF ATTRITION.

SIR: We read in the columns of medical journals from time to time of the urgent necessity for improvement in the practice of obstetrics. Blame has been laid at the door of the experts, viz., medical men and midwives.

To deal with the former first: Surely we have sufficient faith in ourselves to believe that the number of medical men who do not carry out their obstetrical duties to the best of their ability forms a very small minority. This raises the point: Is their ability provided for by a sufficient curriculum, both from the practical and theoretical side,



controlled finally by proper examination? As a graduate of over twenty years I express the opinion unhesitatingly and I believe I shall have the support of most obstetricians, that the fresh medical graduate is not equipped with the skill to put his theoretical knowledge into practice to the extent which might be considered reasonable in such life and death matters. We know that the curriculum is already long and trying, but if increased skill is to be obtained in the freshly-graduated medical practitioner, some theoretical knowledge must be sacrificed and more time given and better methods of training introduced in those women's hospitals where the bulk of our graduates are taught to apply their obstetrical knowledge. To take an example: A very few men when launched in general practice know when a case demands the use of forceps, let alone how to use them. And on the example set by the medical man will largely depend the standard of her work maintained by the midwife.

No doubt there is a feeling against giving the medical profession a monopoly in the treatment of disease, but since the governing powers by their medical act and conferring of degrees have given a monopoly (controlled by competition within the ranks of the profession itself), support should be given to the profession and protection be given the patient and the public by unhesitatingly wiping out the unskilled and untrained midwife. It is almost more essential that she should be aseptic than the obstetrician and how can anyone be aseptic if the training necessary is not there.

The untrained though possibly experienced midwife frequently has all the confidence which makes her lack of training a still greater danger than if she feared to act without supervision. I know several of these midwives who tell the patients they prefer to take the case "without a doctor." Ye Gods! They must not be interfered with because it would be unjust. Surely it would be a case of the greatest good for the greatest number and till firm action be initiated by our governing body and taken by the Governments, till then will the practice of obstetrics remain in the rut of non-progress. The way to progress is to educate the public so that they will choose a government strong enough to correct past mistakes and direct the huge sums mis-spent in maternity bonuses into the channel whereby the unfortunate folks who are unable to pay for skilled attendance, may have State assistance without fear of the accusation of being pauperized and that the care of the mother by unskilled or unauthorized persons be made an offence. Surely the expectant mother is entitled to some such improvement in our methods.

If the above views appear to express the general medical opinion of the subject and their insertion appears to you to serve a useful purpose, I will perhaps be excused for writing at such length on a subject in which all must be interested, though feeling that it is not their duty to take up the pen for the cause.

Yours, etc.,

C. MAXWELL, M.B., B.S.

Frankston, Victoria,  
January 8, 1925.

### Books Received.

CONTRACEPTION (BIRTH CONTROL): ITS THEORY, HISTORY AND PRACTICE, by Marie Carmichael Stopes; with an Introduction by Professor Sir William Bayliss, M.A., D.Sc., F.R.S., and Introductory Notes by Sir James Barr, M.D., LL.D., F.R.C.P., Dr. C. Rolleston, Dr. Jane Hawthorne and "Obscurus"; 1923. London: John Bale, Sons and Danielsson, Limited. Demy 8vo., pp. xxiv + 416, with illustrations. Price: 12s. 6d. net.

### Medical Appointments Vacant, etc..

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xvi.

ETHERIDGE DISTRICT HOSPITAL, GEORGETOWN, NORTH QUEENSLAND: Medical Officer.  
ADELAIDE HOSPITAL: Medical Superintendent.

### Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C..

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney.	Australian Natives' Association. Ashfield and District Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phoenix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association. Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND: Honorary Secretary, B. M. A. Building, Adelaide Street, Brisbane.	Brisbane United Friendly Society. Institute. Stannary Hills Hospital.
SOUTH AUSTRALIAN: Honorary Secretary, 12, North Terrace, Adelaide.	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIAN: Honorary Secretary, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington, New Zealand.

### Diary for the Month.

- JAN. 20.—New South Wales Branch, B.M.A.: Executive and Finance Committee.  
JAN. 22.—Victorian Branch, B.M.A.: Council.  
JAN. 24.—Queensland Branch, B.M.A.: Council.  
JAN. 27.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.  
JAN. 28.—Victorian Branch, B.M.A.: Council.  
FEB. 3.—Tasmanian Branch, B.M.A.: Council.  
FEB. 4 AND 5.—Federal Committee of the British Medical Association in Australia: Meeting at Melbourne.  
FEB. 6.—Queensland Branch, B.M.A.: Branch.  
FEB. 10.—New South Wales Branch, B.M.A.: Ethics Committee.  
FEB. 12.—Victorian Branch, B.M.A.: Council.  
FEB. 12.—South Australian Branch, B.M.A.: Council.  
FEB. 13.—Queensland Branch, B.M.A.: Council.  
FEB. 17.—New South Wales Branch, B.M.A.: Executive and Finance Committee.  
FEB. 17.—Tasmanian Branch, B.M.A.: Council.  
FEB. 24.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.  
FEB. 25.—Victorian Branch, B.M.A.: Council.  
FEB. 27.—Queensland Branch, B.M.A.: Council.  
MAR. 3.—Tasmanian Branch, B.M.A.: Council.  
MAR. 6.—Queensland Branch, B.M.A.: Branch.

### Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

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